The
SHIPPING WORLD

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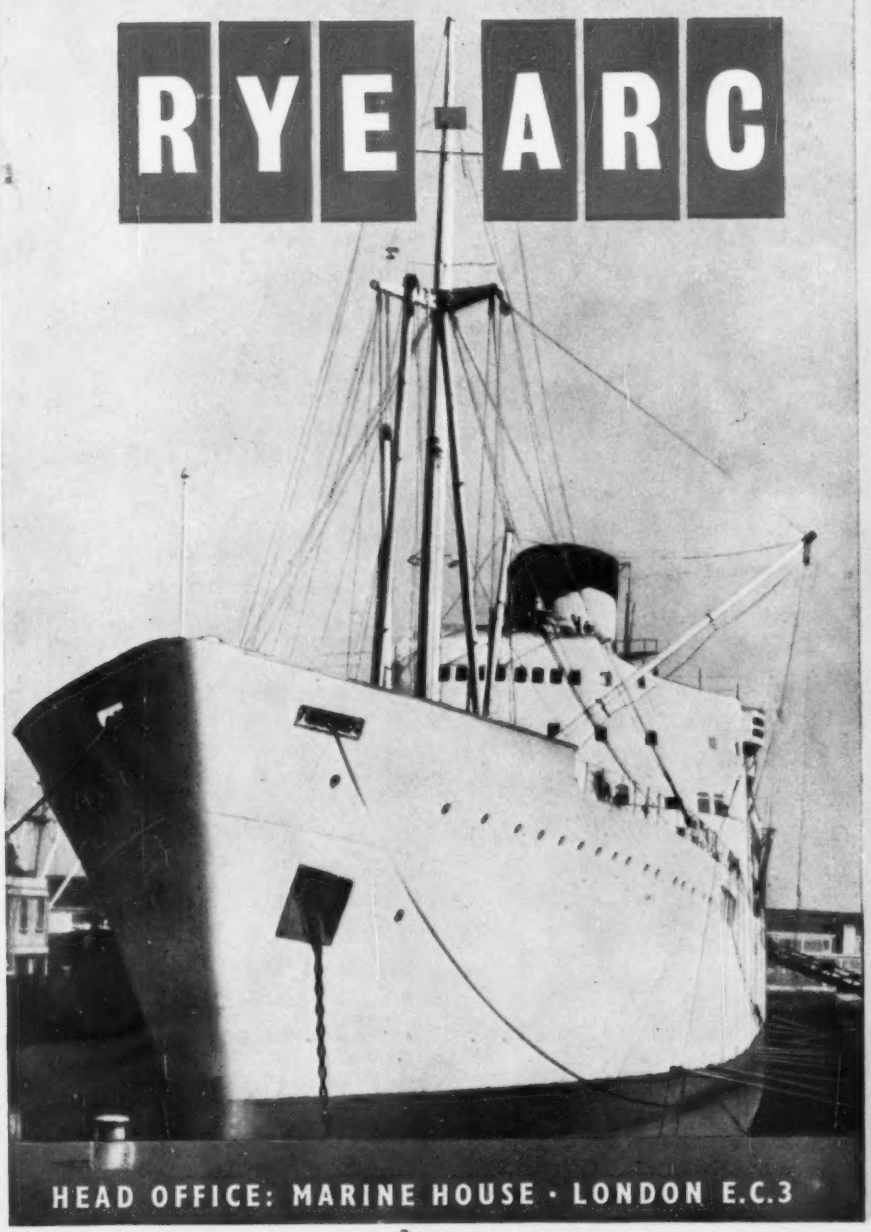

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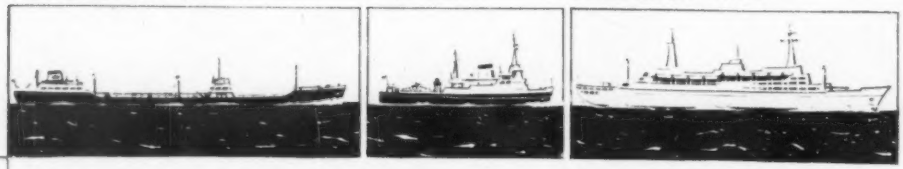

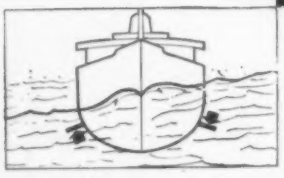

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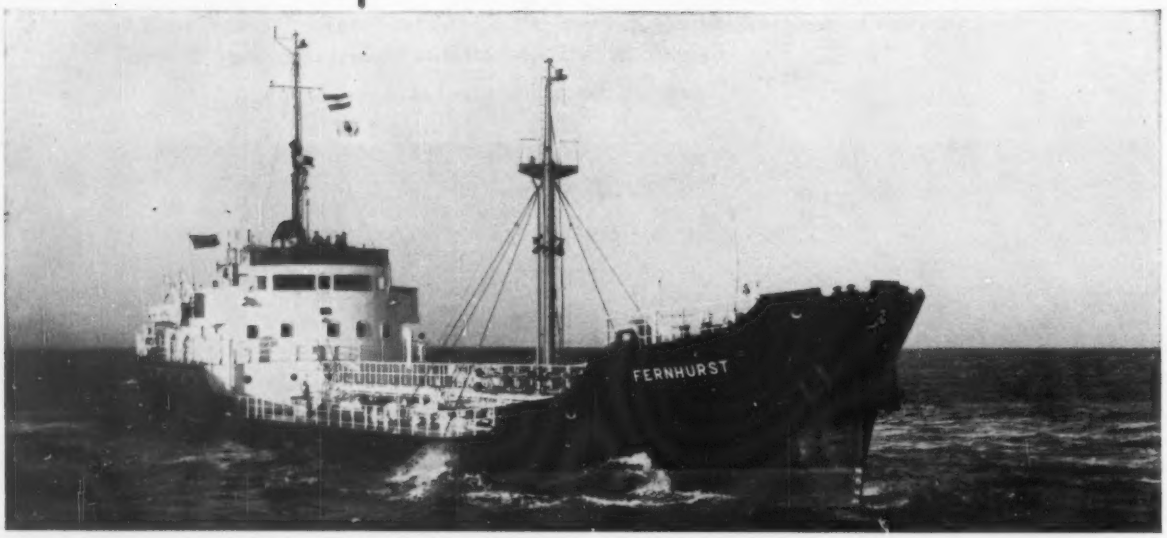

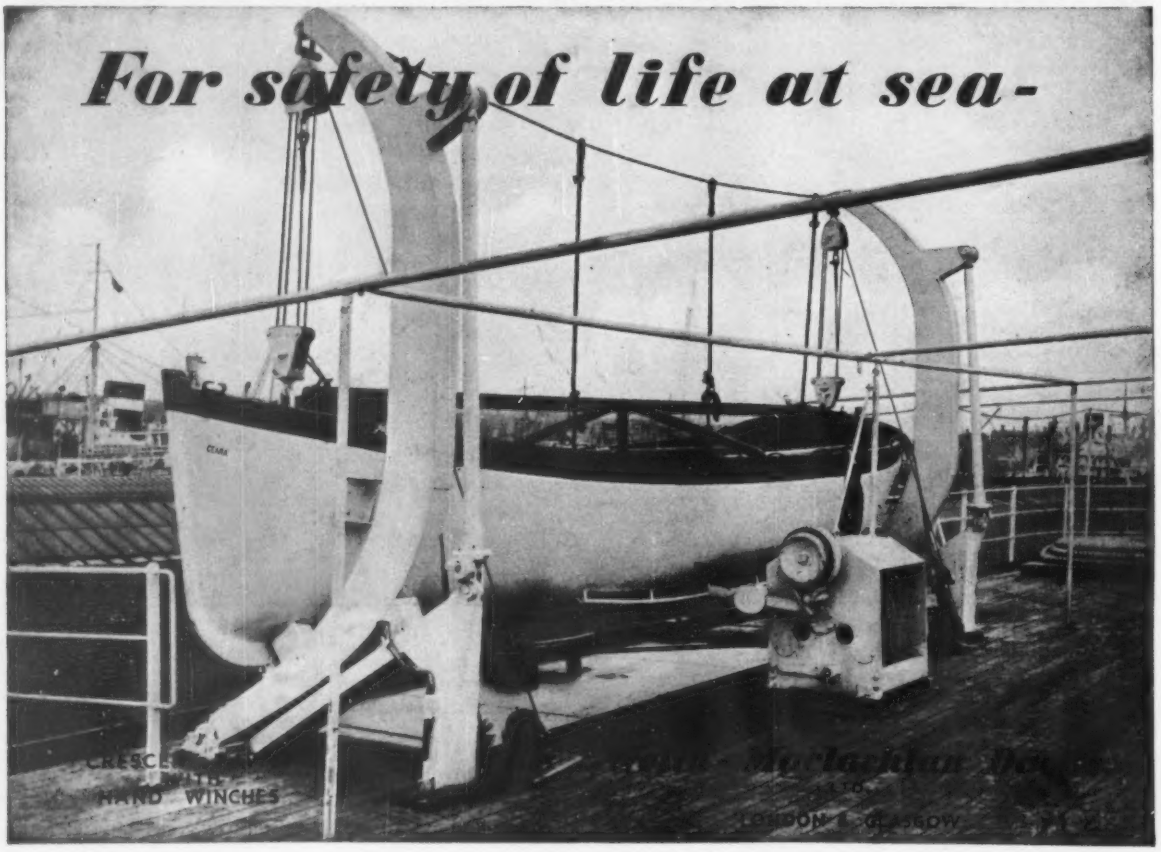

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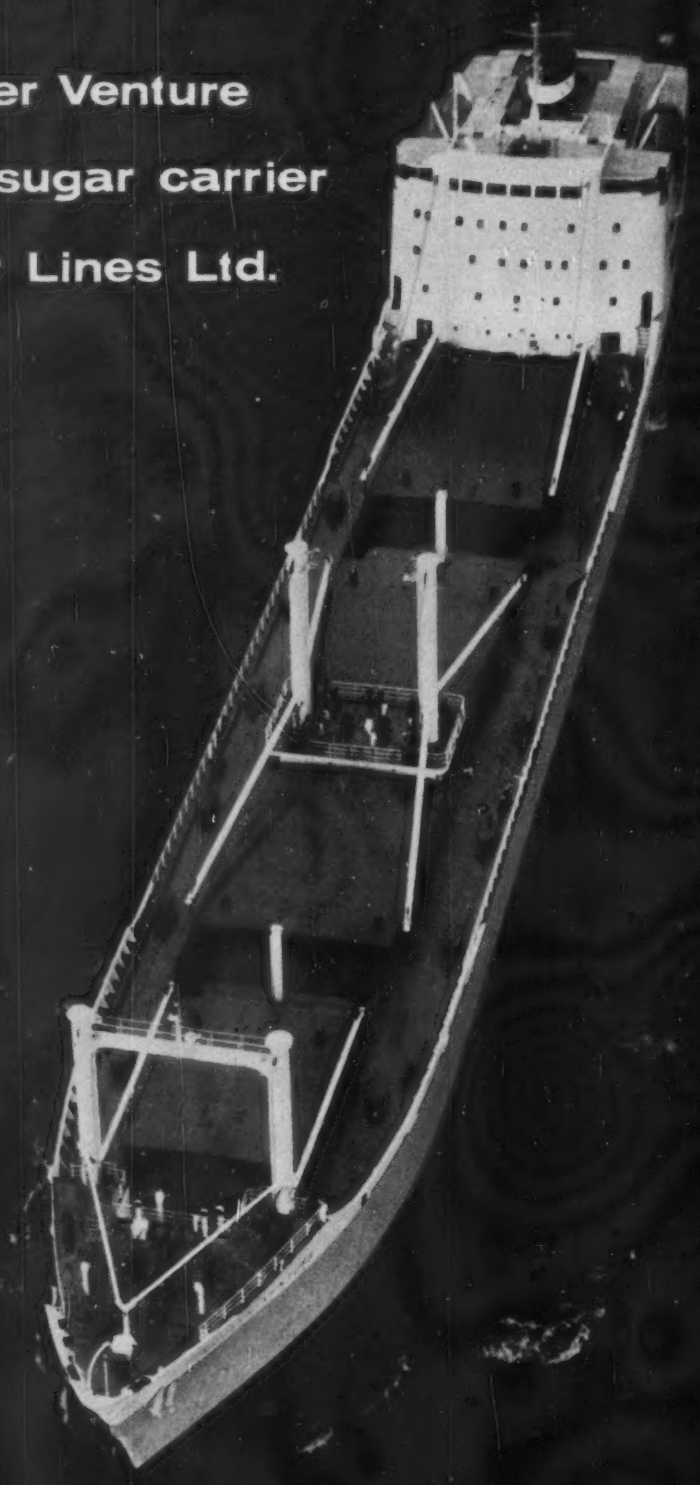

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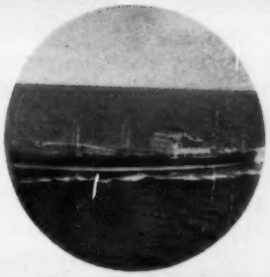
Making their way... by the way they are made



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MARINE INSURANCE CONFERENCE

THE International Union of Marine Insurance has a wide influence in marine insurance affairs all over the world. This body comprises a large number of national associations of marine underwriters who meet annually in September for an exchange of views and opinions. While marine underwriting results in various countries form the main topics of discussion, each year the agenda contains some items of a more general nature which are of interest to the world of shipping and commerce. At present nearly 50 marine underwriting associations representing some 44 countries are admitted to membership of the Union and at the conference held last year in Washington, D.C., papers of considerable interest to shipowners and others outside the marine insurance community were presented, on the problems of nuclear propulsion of ships and developments in the St Lawrence Seaway.

A number of countries in postwar years have introduced legislation of one kind or another which restricts the freedom of the merchant, and possibly the shipowner, to place his insurance cover where he wishes. Naturally enough, the International Union of Marine Insurance has taken a leading part in drawing world attention to the evils of these discriminating practices. The various committees of the Union are closely in touch with the activities of United Nations and other international organisations in political spheres on this and other matters of importance, and there are, of course, several committees appointed by the Executive Council of the Union to collate information and report to the general assembly on a variety of problems in the wider fields of shipping and commerce.

This year the annual conference will be held in Lisbon from 17 to 22 September. The agenda contains some items of interest to those outside the very specialised business of marine insurance. Dr A. Roth will present a report bringing the conference up to date on positive developments which have occurred in the campaign for non-discrimination in insurance matters. In this he is associated with Mr Thomas M. Torrey (U.S.A.). Dr P. Graf is reporting on questions of carriers' liability, with which cargo underwriters are actively concerned. Marine underwriting results for the St Lawrence Seaway caused underwriters grave concern in its first year of operation and the second year brought its toll of casualties. To ship operators and managers the Seaway created many special problems which by no means justified its earlier promises. The report of Mr Kenneth J. Creber, Canadian chairman of the Union's study group on underwriting results for vessels using the Seaway, which appears on the agenda this year, will also be of interest to shipowners. There is, in fact, a general impression that the underwriting loss experience for the Seaway for the past year has been more favourable. This no doubt follows the gaining of experience by shipmasters, and the tightening of the Canadian and American authorities' requirements for ships entering the Seaway.

Current Events

Quid Pro Quo

IT IS fairly generally realised, though not always stated in public, that if British shipbuilding is to flourish in the 1960s and thereafter it will be necessary to tackle the whole problem of demarcation, and not merely to make the existing machinery for perpetuating demarcation work more smoothly. This is clear, but what is less clear is how to set about it. One constructive suggestion came last week from Vice-Admiral Hughes-Hallett, Parliamentary Secretary to the Ministry of Transport, who is at present visiting British shipbuilding and repairing yards. He was inspecting the progress made with reconstruction of the Musgrave yard of Harland & Wolff Ltd, at Belfast, which has been shut down completely while it is rebuilt into a modern yard able to handle ships up to 200,000 tons, and stated that technical modernisation would have to be accompanied by greater flexibility on the part of the trade unions. He went on to make the very pertinent remark that if unions were to be less militant about demarcation there would have to be something given in exchange, and he suggested greater security of employment as a suitable thing to offer. The coupling together of these two may or may not have been suggested in public before, but it has certainly not been widely publicised, and it seems to be an idea which warrants such treatment. Clearly the management side of the industry will have to offer some sort of *quid pro quo*, and this one has great merit. Fear of unemployment is the main motive behind the unions' religious maintenance of demarcation lines: if this motive could be eliminated, the ground would be prepared for an entirely fresh approach on the union side. Conversely, if demarcation strikes and also demarcation itself were eliminated, shipyards would be put in a position where continuity of employment became practical politics.

Ore Carrier Planning

AS FAR back as 1955 an article by Sir Charles Goodeve and Dr J. S. Terrington, of the British Iron & Steel Re-

search Association, appeared in THE SHIPPING WORLD, reviewing in some detail the developments in the British iron ore trade and the way in which they affected shipping to and from these shores. Since then, later assessments have been published in this journal and elsewhere. In this issue Dr Ferraro, director general of Sidermar, the organisation responsible for the shipping requirements of the Italian steel industry, describes the interesting developments which are taking place in that country, which has to import coal as well as iron ore for steel making. Whatever the circumstances which have fostered this remarkable increase in Italian steel production, there is no doubt that the whole enterprise has been carefully and comprehensively planned as an integrated operation. In particular the shipping requirements have been carefully assessed and plans have been made well in advance to ensure the most economical and efficient means of supplying import requirements of raw materials, including the design and size of ships and the arrangements made to receive and discharge them. In regard to port accommodation and the size of ships owned, Britain unfortunately is not yet in such a favourable position, in spite of the fact that her imports of iron ore (so far, at any rate, no coal) will be about 75 per cent higher than the Italian imports of coal and iron ore together. The conclusion may well be drawn that present planning policy might be re-examined in order to obtain the most advantageous transport costs such as Italy is likely to command. These cannot be ignored in such a competitive market.

Without Comment

WHEN the president of the Standard Oil Company of New Jersey, Mr Monroe J. Rathbone, visited Copenhagen a short time ago and held a press conference, our correspondent asked him if he was satisfied with the effects of blacklisting tankers which had transported Soviet crude oil to Cuba. "We have no black lists," Mr Rathbone replied, "but when Fidel Castro nationalised our property we felt that he might possibly think better of it if we could succeed in cutting off his supply of crude oil. Therefore we had to tell shipowners, plainly and publicly, that we should prefer that their vessels were not used for such transports." Our correspondent went on to ask the following question: "It is commonly thought that your non-existent black lists have had the effect of accelerating the construction of tank vessels in the Soviet Union. What is your opinion about that?" Mr Rathbone answered: "I admit the responsibility for this, because I myself made the decision. We were at war with Fidel Castro and could not sympathise with those who helped him. But I must confess we had no success, especially in influencing the thinking of shipowners. On the other hand I still believe that we were right. Nobody can blame us because we didn't like to see Russian oil pass through our refineries in Cuba, and those shipowners who are helping the Reds during the period until they have built or purchased oil tankers enough themselves should certainly not hope for further employment for Russian account in the future."

Distant-Water Trawlers

THE British Trawlers' Federation has issued a report entitled *Fishing in Distant Waters, 1960*. It is not only an elegant and well designed document, but it also contains a good deal of interesting and instructive material. It reminds readers that the distant-water section of the fishing industry is financed from private sources without Government assistance of any kind. The cost of a conventional distant-water trawler is now upwards of £300,000; but despite this high cost, plans continue for the construction of new ships and for the conversion of existing vessels into freezer ships. The report continues: "While the theorists continue to discuss the merits of fleets of factory ships, it is not always explained that such foreign fleets have to be heavily subsidised. A modern factory ship costs about £1,000,000 to build, and although it may be attractive to visualise a British fleet on this pattern, the replacement of the existing strength of over 200 modern distant-water trawlers by fleets of factory ships or mother ships is a problem of such financial magnitude as to make any trawler owner wary." This statement is good as far as it goes, but surely no one has suggested that over 200 modern trawlers should be replaced by a similar number of factory ship fleets. Meanwhile Britain's first part-freeze stern trawler, the *Lord Nelson* (SW, 12.7.61) has entered service, and other vessels of revolutionary design are being discussed and planned by the industry.

Economics of Fleeting Operations

A STUDY is being carried out to assess the economic possibilities of operating a group of trawlers as a fleet, with each trawler in turn assuming the role of carrier and returning to port with the fleet's catch. The object of these fleeting operations is to raise the ratio of fishing time to steaming time (thus increasing the physical productivity of the trawlers engaged) and to lower the average age of the fish at landing (thus improving its landed quality without recourse to freezing). Both fleeting operations and fishing into a mother ship which processes and freezes the catch depend on the discovery of a method of transferring a catch with the minimum damage in the difficult conditions of the North Atlantic. Tests have already been carried out on three types of transfer containers, each of which had to be immersed by the catcher and picked up by the host vessel. Some heartening results were obtained, but it is clear that much more research and experimental work will have to be done before any widespread commercial use is made of transfer procedures.

Tramp Ship as Cable Layer

THE SECURING by British Insulated Callenders Cables Ltd of the order for the manufacture and installation of electric power cables connecting the North and South Islands of New Zealand means that there will be further work as a cable ship for the Stag Line tramp ship *Photinia*. Completed in April of this year by John Readhead & Sons Ltd, this ship has already been chosen by B.I.C.C. as the layer for the gas pipeline which the company is to lay between British Columbia and Vancouver Island, off the west coast of Canada. The conversion, which in the first place will take six weeks and will include such items as stiffening the bows and fitting a Voith-Schneider bow propeller, is to be undertaken by Readheads. The cable laying fittings have been designed and are being made by Telcon (which is part of the B.I.C.C. group), and will remain the property of the cable company. After the initial conversion it will be possible to remove and instal the fittings quite quickly, and the ship will be chartered from her owners as and when she is needed for work on similar projects. The conversion will be carried out this autumn, and trials for the gas line project are due to take place in December. The *Photinia* will then return to normal service until the pipeline is laid in the summer of 1963, while the New Zealand electric power link is due to be laid in 1964. The Voith-Schneider bow propeller will give a thrust of 10 tons. The *Photinia* has steam winches, and thus has not sufficient spare electric generating capacity at sea to power the propeller. It is therefore being driven by a 1,030-hp Lister-Blackstone diesel engine, coupled through a clutch. When she is not laying cables the *Photinia* will be the only tramp ship equipped with a bow propeller.

Taming the Hooghly

THE WORLD BANK has announced that it will make available loans of $21 mn for improvements at the port of Calcutta. A loan of $29 mn was granted in 1958. The new funds, repayable over a period of 25 years and carrying an interest burden of 5¾ per cent, will presumably be added to the substantial allocation of nearly Rs300 mn earmarked for Calcutta under the Government of India's third Five-Year Plan. Projected developments include extension of the western arm of King George's dock, provision of holding space for four ships and four dolphin berths, replacement of the 70-years-old swing bridge and the provision of new cargo-handling equipment, one of the most urgent needs disclosed by a group investigating Indian port problems a few years ago under the leadership of Sir Eric Millbourn. Dredging will also make a major demand on the funds now available. It is reported that four large dredgers, six auxiliary dredgers and sundry other craft are to be purchased or built. It has not been stated how much money is to be allocated for hydraulic research. But in a sense this is the most important of all the new commitments towards the rehabilitation of Calcutta port. The treacherous Hooghly must be tamed if all the other projected improvements are to be made really worth while on a long-term view. No other port in the world has to cope with such intractable approaches as Calcutta, and it is a matter of major importance to the Indian economy that some of the hazards and uncertainties of this important port, handling over 10 mn tons of cargo a year, should be removed. The feasibility of expanding the new anchorage at Haldia in the estuary into a satellite port for bulk cargo carriers is also involved in the research programme.

Instructions to Crew

THE RIGHT to limit liability under the provision of the Merchant Shipping Acts is one of the privileges enjoyed by shipowners, but the recent case of *F. T. Everard & Sons Ltd.* v *London & Thames Haven Oil Wharves* will be studied with some concern by shipowners and will no doubt give rise to a general review of the present arrangements in owners' offices to ensure that instructions to masters of vessels are being followed up. This case concerned a fire at an oil jetty caused by sparks from the galley fire of the motor tanker *Anonity*. In the plea for limitation of liability in respect of the damage caused by the fire, the owners submitted evidence that a circular letter had been issued to all their masters warning against the dangers from galley fires or naked lights at oil wharves or jetties. The owners had also instructed that marine superintendents should follow up this circular letter when he visited the ships. As the Court remarked, however, the circular letter was not shown to the crew of the vessel, and never saw the light of day after being placed on the ship's file. The Court ruled that the promulgation of a circular letter over such a serious matter was not enough, and it was the view of the Court that while the master of the vessel was at fault there were no grounds for holding that the damage by the fire arose without the fault or privity of the owners of the vessel, who should have taken measures to ensure that the instructions were being obeyed. The right to limit liability in respect of the damage caused by the fire was denied.

High Speeds

"Trials . . . . were attended by Mr ————, managing director, and all the other directors, and tug owners and shipping men from many parts of the country: they showed a mean speed of 13½ knots in adverse weather."—*From a news release.*

Not quite as fast as a four-minute mile, if you work it out, but very creditable in view of the prevailing conditions and the probable ages of those participating.

B

On the "Baltic"

INCREASING CHOICE OF EMPLOYMENT

By BALTRADER

THE OWNERS of the comparatively small number of ships available in home waters in the next few weeks are faced with an almost bewildering choice of business, although it must be admitted that, as always these days, a large proportion of the cargoes available are bound for Eastern destinations. Of course, the trans-Atlantic grain trades have brightened up in recent weeks and higher rates have been paid for late season St Lawrence loading, as well as from Churchill, but the main feature has been the very active chartering of grain-carrying tankers from the U.S. Gulf to Europe. Although rates have improved, this provides little consolation to the dry-cargo shipowner. A few weeks ago there was a useful burst of activity in the River Plate grain trades which attracted tonnage in ballast from this side, but more recently this market has been rather quiet, with much of the business to Europe confined to the booking of parcels in liners.

An owner with a ship in European waters who decides to go out to the East has no need to ballast across the North Atlantic today, for there are plenty of cargoes available from the Continent. Pig iron quotes freely from the near Continent to Japan, and apart from single voyages there is inquiry circulating for contract shipment spread over 12 months. Coke breeze is workable from the same loading area to Japan and coke breeze and pig iron also quotes from the U.K. to Japan, whose hungry appetite for all the ingredients of steel-making seems never ending, in spite of the fact that her ports are clogged up with shiploads of scrap awaiting discharge. An interesting inquiry is that for barley from France to China and for those owners who prefer not to go to the Far East there are such cargoes as cement from Poland to East Pakistan and the Persian Gulf.

Ore Chartering in India

One of the main features of the markets in the Indian area is the continued interest of ore charterers from Mormugao, and here again the main inquiry is to Japan. Either single voyages or contracts are workable and last week, for example, a charterer was inviting offers for a contract extending over three years with daily loading rates varying from 1,000 tons during the monsoon period to 1,500 tons during the fine season, but in any case even better daily rates can be agreed when loading at some of the new mechanical installations. Last week, for example, a vessel was fixed from Mormugao to Japan at 43s with 3,000 tons per day loading, although the current rate with say 800 tons loading would probably have been at least 5s per ton more. The monsoon draught restrictions end in the middle of next month and owners will be glad of the opportunity of loading substantially larger cargoes.

The main point of interest in the Far East continues to be the serious congestion in Japanese ports and from recent reports the situation is apparently becoming worse rather than better. Coal and ore ships are probably doing better than most, although of course still much delayed, but the worst affected seem to be those with scrap cargoes. There is now nothing unusual in a Liberty vessel taking 40 to 45 days to discharge scrap and owners tell of ships still half loaded with cargo after 30 days in port being handled by one stevedoring gang using one lighter. This is, of course, the sequel to the unprecedented chartering activity out to Japan in May and June this year and, as already mentioned, the demand for more and more imports seems to continue unchecked.

NEWS FROM OVERSEAS

From THE SHIPPING WORLD'S Own Correspondents

American Shipping Notes

THE U.S. CONGRESS has been urged by both private steamship interests and the Maritime Administration to close what was described as a dangerous gap in national shipping legislation. Legislation now pending and supported by these groups would bar any ships built, rebuilt, or documented abroad and subsequently transferred to U.S. registry from participating in cargo guaranteed to American-flag ships under the Cargo Preference Act until they have been under U.S. documentation for three years. Such vessels are already excluded from the domestic trades, but these have proved less of an inducement to transfer to the American flag in recent years than the opportunity to share in the benefits of "50-50." The American Merchant Marine Institute, while endorsing the bill, urged the incorporation of amendments providing (1) that the 3-years waiting period should not include any prior period under U.S. registry and (2) that operators now building or rebuilding ships abroad for such registry, in reliance on present law, should be exempted from its provisions.

It has been reported that a plan is being developed by McLean Industries Inc. to sell its subsidiary Waterman Steamship Corporation and use the proceeds to reinforce the intercoastal service of another subsidiary, the containerised Sea-Land Service. The plan would reportedly include transfer of all Waterman assets, including about 25 C2-type ships, to McLean, followed by disposal of the "corporate entity" of Waterman. The Federal Maritime Board last spring authorised Sea-Land to inaugurate container cargo service between the Atlantic and Pacific Coasts. It has also had before it for several years an application by Waterman for operating-differential subsidy on its foreign berth services—an application which it has already cleared, pending the working out of a satisfactory financial plan for fleet replacement. The new report does not indicate what would become of this subsidy application in the event of Waterman being sold.

Refitting Liberty Ships

THE modernised Liberty ship *F. E. Weyerhaeuser*, of the Weyerhaeuser Steamship Line, recently left Florida's Tampa Shipyard as the first of six ships which the company is having extensively repaired and modernised for its intercoastal service, carrying lumber eastbound and general cargo westbound. Satisfied that the Liberty is the most efficient vessel available for their trade, the company have launched a complete fleet-rehabilitation programme involving renewal of crew quarters, galley and pantry equipment, piping and wiring systems, and hull plating as required. The programme, which is expected to cost about $1,000,000 per ship, is designed to give the 16-years-old Weyerhaeuser ships an additional 15 years of useful service.

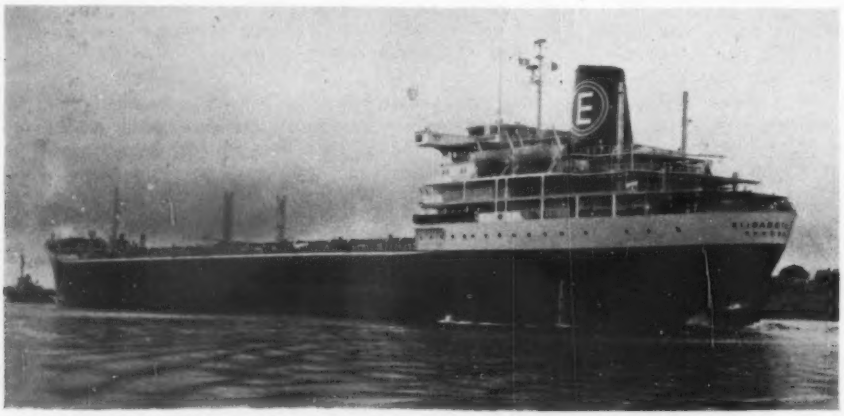
Israeli Passenger Vessel to be Ordered

SOMERFIN (ISRAEL) CO LTD, a subsidiary of Somerfin, Geneva, is to order the construction of a $5 mn passenger vessel to operate between Haifa and Brindisi. Israeli Government approval has just been received. The construction will take about 20 months, but so far the name of the shipyard has not been revealed. Our correspondent learned that the ship—incidentally to be the first Israeli passenger ship not owned by Zim—will accommodate some 600 passengers and their cars and will cover the route Haifa-Brindisi in 2½ days. The Israeli Government has agreed to underwrite the credit of 80 per cent of the cost price which the shipyard will grant the company, and the project has been approved by the Ministries of Finance and Transport.

Supervision in Czechoslovakia

THE Czechoslovak Register of Shipping now represents the Hellenic Register of Shipping in Czechoslovakia. Surveys of Greek vessels either for classification or any other reason in a country which has no seaports does not seem very likely. Nevertheless, it may be possible for Greek vessels of small tonnage to sail via the Danube to different river ports and inland waterways of Czechoslovakia where a flourishing trade and important industrial installations are in existence. More important, however, will be the fact that Greek shipowners interested in Skoda diesel engines or any other kind of engines constructed in Czechoslovakia, will be able to apply to the C.R.S. either directly or through the H.R.S. for their inspection and control before delivery. In addition both these Societies could undertake the supervision of the installation of engines in ships.

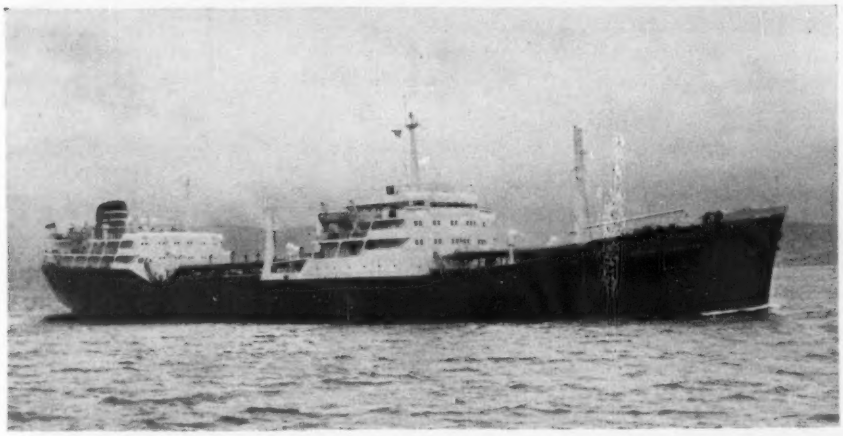
UNITED SHIPPING AGENCY, Haifa, has ordered two 2,200-dwt cargo vessels in Germany for services in the Eastern Mediterranean, to be operated by their new Hamalchim Navigation Company.



NEW ORE/OIL CARRIER FOR GERMANY

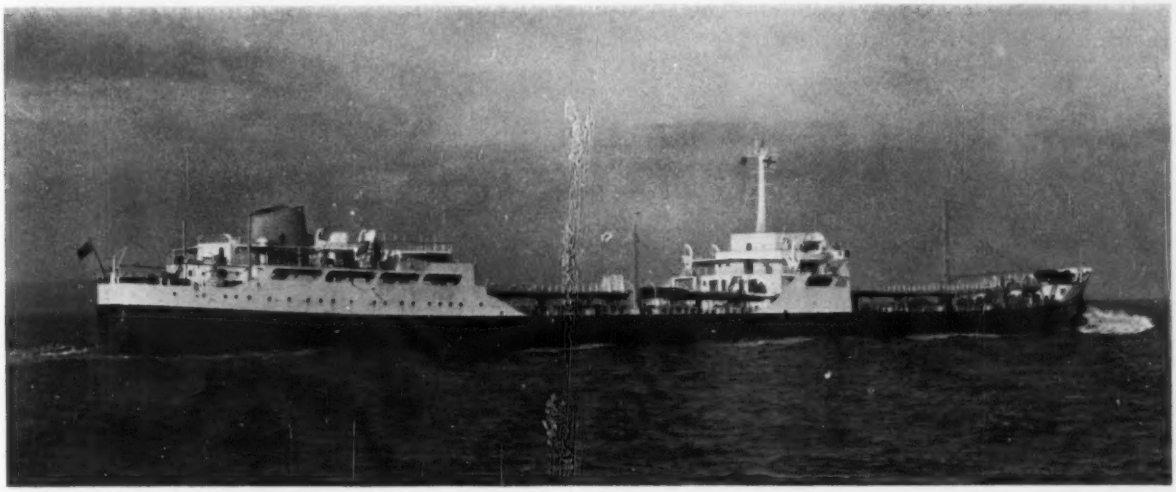
The 36,000-dwt combined ore/oil carrier "Elisabeth Entz" has been delivered to the Thomas Entz Tanker GmbH, Rendsburg, from the Bremen shipyard of A. G. "Weser". The principal dimensions of this vessel are length overall 711ft 6in, length b.p. 673ft 3in, breadth moulded 91ft 3in and draught 35ft 6in. She has eight hatches and has been strengthened for navigation in ice. Single cabins have been provided for all the crew. The main machinery consists of an A. G. "Weser" turbine developing 14,000 shp maximum which gives a speed of 15¾ knots

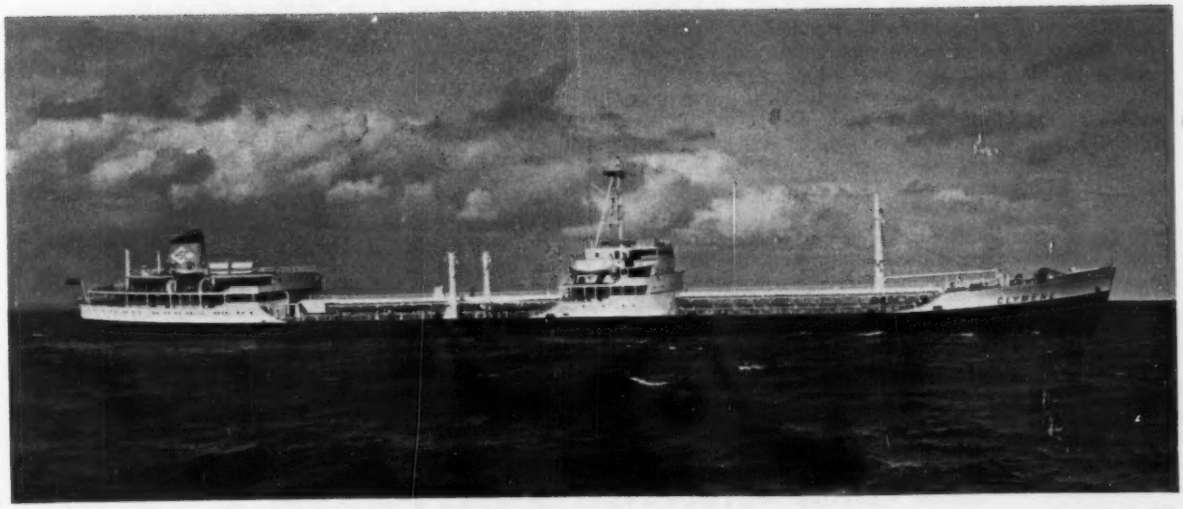
New Tankers from British Yards



TWO HARLAND & WOLFF DELIVERIES

Harland & Wolff Ltd, Belfast, recently delivered two tankers to their owners. The "British Cormorant" (left) is the latest in a series of 15,400-dwt tankers for the BP Tanker Co Ltd. Two similar vessels, "British Mallard" and "British Gull", were completed last year at Belfast and Govan, while three further sister ships are at present under construction, two at Govan and one at Belfast. The "George Peacock" (below), is the second of two tankers built for the Pacific Steam Navigation Company. She has a deadweight capacity of 28,800 tons and is powered by a H & W B & W seven-cylinder diesel engine





TANKER FOR THE HADLEY SHIPPING CO LTD

The 18,500-dwt tanker "Clymene" has been delivered to the Hadley Shipping Co Ltd by Hawthorn Leslie (Shipbuilders) Ltd, Hebburn-on-Tyne. She was originally ordered by Shell Tankers Ltd and is similar to that company's "A" class of vessel. The principal dimensions are length overall 560ft, breadth moulded 69ft 3in, depth moulded to upper deck 39ft and summer draught 29ft 9¾in. The main machinery comprises a set of Hawthorn Leslie turbines developing a maximum power of 7,500 shp giving a service speed of 14½ knots

Oil Topics

PERIOD TANKER CHARTERS

In their report on the tanker charter market in July, Davies & Newman Ltd state that the period market was the main centre of interest, and further interesting developments took place. Following their previous announcement of the fixing of 80,000-tonners, one London company closed four further such vessels at unchanged rates, and then invited offers of vessels up to a maximum of 53,000 dwt. A considerable number of tankers offered for this requirement, many of them being existing vessels, and eventually four 53,000-tons newbuildings were taken, three diesel vessels at an average rate of 16s to 16s 6d, and a turbine tanker at 14s 6d, all for 20-year periods from 1963/4. In addition, a 39,000-tons turbine vessel secured 12 years timecharter at an average of 12s 3d, while a 34,000-tons motor vessel was taken at 15s 2d for 10 years, both with end-1963 delivery. Another London company secured a 35,000-tons motor vessel for seven years from end-1963 at 14s 9d, and it is understood that these charterers are still negotiating further tonnage. Other London principals have concluded fixtures for shorter periods with early deliveries. A Norwegian motor vessel of 41,000 tons accepted 14s for two years timecharter from February next, while a 33,000-tons turbine tanker was taken for 2½ years from September at 11s 4½d. In addition, an 18,000-tons motor tanker giving prompt delivery secured a year's employment at 11s 6d.

Voyage Fixtures

There were fewer single voyage black oil fixtures reported during July than during June, but nevertheless the rate for tonnage from the Persian Gulf to U.K./Continent and Eastern destinations showed further slight improvements, the rate to U.K./Continent moving to around Scale minus 57½ per cent. There was scarcely an inquiry for dirty tonnage in the trans-Atlantic trade, but a medium-sized early-August vessel secured a heavy oil cargo to Germany at Scale minus 45 per cent while a 30,000-tonner was fixed to Sweden with a part cargo at Scale minus 52½ per cent. At the present time, inquiry is on a very small scale indeed. Japanese charterers are practically covered for August from the Persian Gulf, and inquiry for London account consists almost entirely of one or two short voyages. The trans-Atlantic clean rate improved over the month from Scale minus 43¾ to minus 40 per cent, and in addition three vessels were taken from Persian Gulf to Far East at Scale minus 35 per cent. However, here again inquiry at present is slack. Following the settlement of the American seamen's strike the demand for foreign-flag black oil tonnage from Caribbeans to U.S.N.H. has fallen off, but rates in this trade have been fairly well maintained. On the other hand, rates for American-flag clean and dirty vessels from the U.S. Gulf have shown appreciable improvements, medium-sized clean tonnage securing around A.T.R.S. plus 25 per cent for up to three trips, and similar black oil vessels being fixed at A.T.R.S. plus 20 per cent.

The past month has seen a reduction in the total of the laid-up fleet, which now stands at 235 vessels of about 3,978,000 dwt, a reduction of 20 vessels of about 438,000 tons. At this time last year the total laid-up fleet was about 6,150,000 tons.

Shell Chartering

The London company mentioned as chartering 80,000-tons tankers is Shell, and they have now taken on charter a total of eight vessels of this size. The first four, fixed during June, comprised two ships building for the Naess group and two building for Sigval Bergesen (*SW*, 28.6.61). The four further orders now mentioned are understood to comprise one each from Anders Jahre, Fred Olsen, Niarchos and Onassis. Of the four vessels of 53,000 dwt taken by Shell, the three motor tankers are on order for Ludvig Braathen, Rolf Wigand and Fernley & Eger: all Norwegian owners. The owner of the turbine vessel reported as the Alvion S.S. Corp, of Panama. The Shell programme of new construction is approaching its end, and it has been stated that no further orders are contemplated at present. It seems clear that the availability of so many large vessels on good terms has made the company turn to this method of procurement for its next group of new tonnage, and that it may well be some years before Shell orders more ships for its own account.

RECENT SHIP SALES

Motor tanker *Dordrecht* (ex-*Jan*, 9,214 dwt, 6,307 grt, 3,556 nrt, built 1948 by Cantieri Riuniti dell' Adriatico) sold by N.V. Mij. Zeeschip "Dordrecht" (Phs. Van Ommeren N.V.) to Italian buyers and renamed *Lantini*.

Cargo steamer *Georgios S.* (ex-*Rallus*, 1,871 grt, 920 nrt, built 1922 by Swan Hunter & Wigham Richardson Ltd) sold by Cia. de Nav. Arcoul S.A., Panama, to Hong Kong buyers for about £33,000. She will be delivered at Hong Kong during August.

Cable steamer *Marie Louise Mackay* (1,397 grt, 649 nrt, built 1922 by Swan Hunter & Wigham Richardson Ltd) sold by Commercial Cable Co to Belgian shipbreakers, with prompt delivery Plymouth.

Motorships *Lalandia* and *Meonia* (each of about 5,200 grt, 3,000 nrt, built 1927 at Nakskov by A/S Nakskov Skibsvaerft) sold by A/S Det Ostasiatiske Kompagni to Hong Kong shipbreakers. The *Lalandia* realised £20 15s per ton light displacement for delivery August/September, and the *Meonia* £20 5s for December/January delivery.

Motor vessel *Vilja* (9,470 dwt, 5,276 grt, 3,106 nrt, built 1945 by A/B Gotaverken) sold by Skibs A/S Nordheim (H. Ditlev-Simonsen & Co) to Norwegian buyers, reported to be A/S Krohn Brekkes Rederi, Haugesund, for about £330,000 and renamed *Bingo*.

Motor vessel *Vingnes* (9,370 dwt, 5,201 grt, 3,063 nrt, built by A/B Gotaverken, launched 1940, completed 1945) sold by Skibs A/S Nordheim (H. Ditlev-Simonsen) to other Norwegian buyers for about £330,000.

Cargo steamer *Siram* (ex-*Raphael*, ex-*Atlantic Vagrant*, ex-*Ocean Vagrant*, 10,560 dwt, 7,146 grt, 4,346 nrt, built Richmond, Cal., 1942 by Todd-California Shipbuilding Corp) sold by Cia. de Vapores Siram S.A., Panama, to Greek buyers for about £120,000 with survey passed. She has been lying at Syra since December.

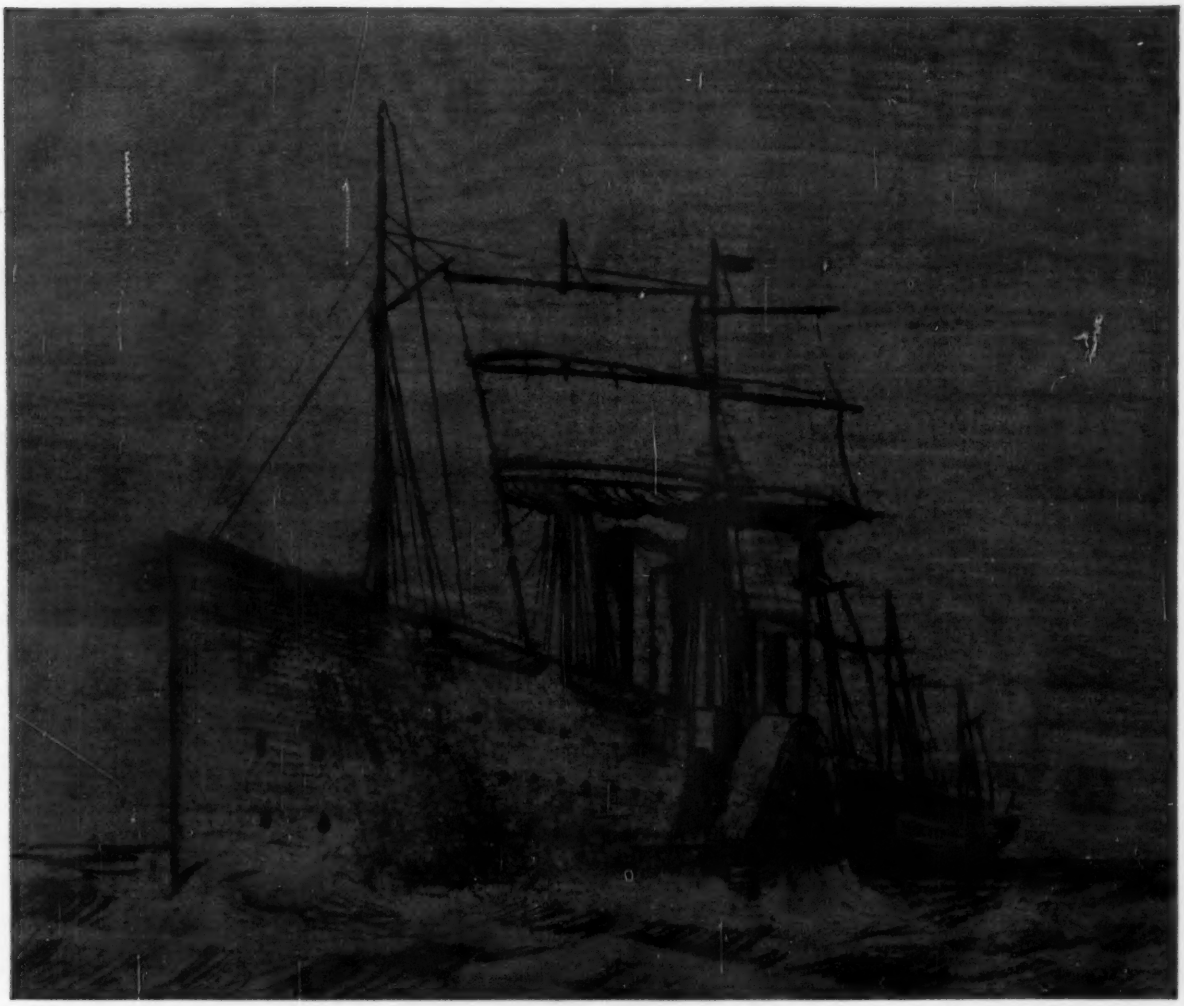
Cargo steamer *Cape Howe* (9,800 dwt, 6,997 grt, 4,264 nrt, built 1943 by Lithgows Ltd) sold by Lyle Shipping Co Ltd to Hong Kong trading buyers for £105,000 with delivery Hong Kong September. Buyers are reported to be the Wing Tak Steamship Co Ltd

Passenger steamer *Sassari* (ex-*Pace*, ex-*Cuba*, 4,013 grt, 2,277 nrt, built Philadelphia 1921 by W. Cramp & Sons S.B. & E.B. Co) sold by I. Messina & Cie., Genoa, to Italian shipbreakers.

Cargo steamer *Appulo* (ex-*Royal William*, ex-*Pantrooper*, ex-*Fort Wrigley*, 7,020 grt, 4,309 nrt, built 1943 by the Victoria Machinery Depot Co Ltd) sold by L'Italica di Nav. S.p.A., Genoa, to Italian shipbreakers. She had been idle at Venice since 10 June 1958.

Cargo steamer *Globe Traveller* (ex-*Christiane Schulte*, ex-*Sigfried J. Nimtz*, ex-*Stettiner Grief*, 3,202 dwt, 2,265 grt, 1,283 nrt, built 1938 by Stettiner Oderwerke) sold by P. Polychronides & C.M. Petridi (Dolphin Shipping Co Ltd), Piræus, to Greek buyers for about £60,000.

Cargo steamer *Armonia II* (ex-*Dale*, ex-*Dalewood*, 4,230 dwt, 2,795 grt, 1,556 nrt, built 1931 by S. P. Austin & Sons Ltd) sold by Cia. de Nav. Louteflodini Ltda., Panama, to Bermudan buyers for what is reported at £57,500.



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Italian Developments in Iron Ore Shipping

PLANNING REQUIREMENTS OF AN EXPANDING INDUSTRY

By Dr F. Ferraro, Director General of Sidermar, Genoa

Introduction

It is always instructive to keep the world situation under constant review and to profit by any particular developments which may occur. The writer was accordingly glad to respond to an invitation to contribute this article, because he has felt that Italy has projects which may well be of interest to the shipping trade of the world and in particular to Great Britain. The writer is, of course, aware of the way in which Great Britain has in recent years been meeting the changing conditions of the freight market in iron ore shipping, the commercial and technical aspects of which have been described in a series of articles.[1, 2, 3, 4, 5] There have, however, also been spectacular developments of iron and steel production since the Second World War in some other countries, including Western Germany, Japan, and more recently Italy.

From plans already laid Italy is, in fact, to become an important European producer of iron and steel, and this would be impossible without its iron ore and coal shipping programme. All concerned in the shipping industry will wish to see how this Italian development compares with that of the rest of the world, and especially of Great Britain. Both the steel industries and the shipping industries of the world are entering a much more competitive period. It is at these times that there is an urge towards cheaper methods of production which will help to reduce prices and so step up demand ultimately to higher consumer levels.

Phases in Development

The Italian iron and steel industry has completed two phases of development since the war; firstly the period of reconstruction and restoration of production to prewar levels; secondly the expansion to new production levels, so that Italy is at present eighth among the world's steel producing countries. Now a third stage is in progress involving the expansion of the existing integrated iron and steel plants and the building of a new works. This third stage necessitates the shipping fleet in which readers of this journal will be interested.

Expansion

Italy's industrial development has been fostered by her participation in the European Coal & Steel Community, which allowed a five-years transition period, after which all Customs restrictions were abolished inside the Community.

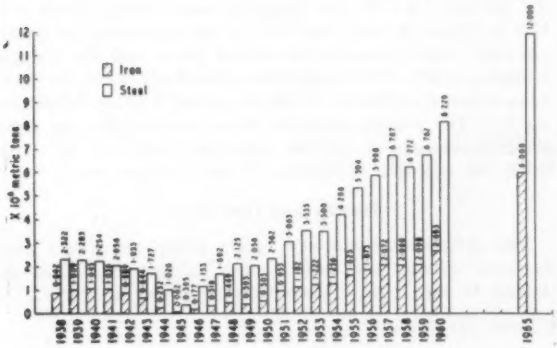

FIG 1. Italy's steel and iron production

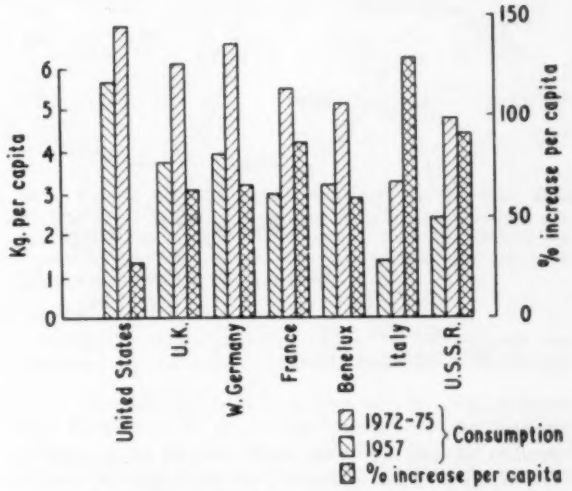

FIG 2. Consumption of crude steel per head of population

The high rate at which she has developed will be seen from the values of her annual production in steel and iron (Fig 1). Indeed the record output in 1960, exceeding 8 million tons, is an increase of as much as 170 per cent, in under ten years, over the 1951 figure of 3 mn tons. Moreover, in spite of this increase, there is still considerable scope for the industry's development, as can be seen from Fig 2. This shows the consumption of crude steel per head of population, which is well known to be one measure of the standard of living of any modern State. On the 1959 figures, Italy's level was about 50 per cent of other European countries and about 30 per cent of the United States. In accordance with United Nation's forecast of long-term trends[6], however, the Italian output per head will increase 130 per cent, compared with 60-90 per cent for most other European countries and the USSR, and in contrast with 27 per cent for the United States. The means by which this development is to take place will be seen in the course of this article.

Industrial Structure

Almost all the works, accounting for about 94 per cent of the total Italian steel output, are members of Assider (Associazione Siderurgiche Italiane) which corresponds to the British Iron & Steel Federation. Of these about six works—Ilva (Piombino), Ilva (Bagnoli), Cornigliano, Falck, Fiat, Dalmine—account for about 65 per cent of the country's steel output. The State is a major shareholder in much of the steel industry (Ilva, Cornigliano, Dalmine, S.I.A.C., Terni and Breda) through Finsider (Societa Finanziania Siderurgica) and wholly owns one works, Cogne. These State-controlled works produce about 60 per cent of the country's crude steel production and 90 per cent of the pig iron production. The privately owned firms are Falck, Fiat and numerous small companies mostly in northern Italy.

Factors in Development

The growth of the Italian iron and steel industry has been moulded by factors which are different from those in most of the other industrial countries. Except for small

FIG. 3
LOCATION OF
INTEGRATED WORKS

deposits of iron ore in the Valle d'Aosta (magnetite), on the island of Elba (hematite), on the island of Sardinia (hematite) and in the province of Bergamo (siderite), no iron ore exists. Italy has no coking coal. On the other hand, electric power from hydroelectric sources has been in use in northern Italy since about 1900 and natural methane gas has become generally available in recent years.

Because of the lack of iron ore and coking coal, open hearth furnaces or electric furnaces using a burden largely of scrap became the usual practice, and to meet the growth of consumer industries, gave rise to small cold metal works mostly in the North. Scrap is obtained from France and Germany (75 per cent) and from the United States (25 per cent). The industry is accordingly very sensitive to the price of scrap, which has soared in times of crisis.

The availability of hydroelectric power has led to the extensive use of the electric arc steel furnace and an "electro-blast" furnace for the production of iron, which uses electric power in a low-shaft kiln, at a low cost of about ½d per kWh. However, this is not uniformly available during the year, owing to the seasonal water flow. In addition to electric power a new source of energy, natural gas, was discovered after the Second World War in northern Italy and is available at a low rate of 1½d per cubic metre. It is used, in part, in open hearth furnaces and exclusively in some of the soaking pits of the rolling mills.

In view of the disadvantages of dependence on imported scrap, the industry has followed a policy of increasing the use of pig iron in the steel furnaces. This was, in fact, one of the provisions of the steel plan drawn up for the European Recovery Programme under the Marshall Plan in 1947. To implement this policy, integrated works, i.e. those comprising blast furnaces as well as steel furnaces, are being modernised and enlarged at Cornigliano, Piombino, Bagnoli and (in process of building) Taranto. Being situated on the coast, they can receive imports of iron ore and coal from abroad, directly at their own mooring berths, thus avoiding land transport costs and delays.

These enlarged integrated works are all the more vitally necessary since the industry's scrap supply problem has been accentuated by the rapid increase in the industry's production, including particularly its output from electric furnaces (Italy is the largest producer in Continental Europe of electric furnace steel).

Immediate Future

By 1965 Italy expects to produce over 7 mn tons of pig iron and 12 to 13 mn tons of crude steel. This will mean increasing by 50 per cent the present output of steel and trebling the present output of pig iron. The considerably higher rise in pig iron production shows that the balance between scrap and hot metal requirements will be greatly improved. Works controlled by Finsider will supply 90 per cent of the pig iron and 60 per cent of the crude steel. The expansion of the integrated works at Cornigliano, Piombino and Bagnoli and the completion of the new Taranto works will largely achieve these targets. The relative situation of the works is shown in Fig 3.

Iron Ore and Coal Supplies

The raw materials for the blast furnaces are iron ore and coking coal and from the point of view of shipping requirements it is of particular interest to examine past records and to review the fluctuations in the sources of supply of these materials.

TABLE I
Sources of Iron Ore Imports to Italy, 1953-58

	1953 '000 tons	%	Annual average 1954-7 tons	%	1958 '000 tons	%
Venezuela	—	—	127.1	11.3	681	29.8
Portuguese India (Goa)	—	—	219.0	19.5	410	17.9
Algeria	420.4	57.3	159.0	14.1	227	9.9
Turkey	39.7	5.4	156.8	13.9	179	7.8
Tunisia	158.3	21.6	80.0	7.1	177	7.7
Sweden	42.4	5.8	212.8	18.9	168	7.3
India	—	—	21.2	1.9	151	6.6
Brazil	—	—	27.7	2.4	44	1.9
Greece	—	—	50.2	4.4	—	—
Portugal	43.6	5.9	—	—	—	—
Canada	—	—	21.0	1.9	—	—
Morocco	20.1	2.7	—	—	—	—
Other countries ...	9.3	1.3	51.2	4.6	255	11.1
Total	733.8	100	1,126.0	100	2,292	100

The iron ore imports from the various sources are set out in Table I. Venezuela was the main supplier in 1958, almost doubling its 1957 exports to Italy. Imports from Portuguese India (Goa) where Germany and Italy (Finsider) are mining important ore deposits under concessionary rights, showed a substantial increase over previous years. Imports from Algeria and Tunisia have lost the predominance they had in 1954 and those from Sweden declined sharply in 1958, while Greece is no longer a supplier. The rate of increase in imports has accelerated and will continue to rise, reaching 9 mn metric tons in 1965. The additional tonnage of ore will be obtained from the more distant sources such as Labrador and Venezuela, while Finsider have also participated in the "Miferma" Company's interests in Mauritania.

Coking coal imports from the United Kingdom held first place from 1930 to 1934, with Germany second; in the period 1934-39 coal imports came mainly from the U.S.A. Since the war the U.S.A. has occupied the same position, with Germany in second place and the United Kingdom third. Purchases from the Ruhr have, in fact, been reduced in favour of the large and flexible American market. The present imports of coking coal for the steel industry are about 2.8 mn tons per year and by 1965 these are expected to rise to 5.5 mn tons per year.

Italian Iron Ore Ports

The present position and future prospects of the port facilities serving the Italian steel industry are listed in Tables II and III and may be summarised as follows:

Cornigliano (Fig 4)

Existing facilities comprise a narrow jetty having four 10-tons unloaders capable of receiving vessels of up to 20,000 dwt.

TABLE II

Italian Iron Ore Ports in Relation to Imports and Production (Finsider Group)

	Pig Iron '000 tons		Steel '000 tons		Imported Iron Ore '000 tons		Imported Coal '000 tons		Berthing Accommodation		Unloading Equipment	
	1960	1965	1960	1965	1960	1965	1960	1965	1960	1965	1960	1965
Cornigliano	710	1,600	1,366	2,000	1,039	2,100	707	1,330	DW 20,000T DR 30ft	DW 60,000T(1) DR 42ft	4/12T(e)	2/30T + 2/20T(n)
Piombino	676	1,200	665	1,600	827	1,500	694	1,040	DW 16,000T DR 28ft 6in	DW35,000T DR 36ft	4/10T(e)	2/20T(n) 4/10T(e)
Bagnoli	695	1,550	663	1,650	740	1,950	684	1,400	DW 16,000T DR 28ft 6in	DW 45,000T(2) DR 38ft	4/12T(e)	2/20T(n) 4/12T(e)
Taranto	—	1,800	—	2,000	—	2,650	—	1,580	—	DW 60,000T(1) DR 42ft	—	No plans available yet
Trieste	169	600	47	(3)	111	850	203	600	DW 16,000T DR 28ft 6in	No plans available yet	4/5T(e) iron ore 3/2.5T(e), 3/4T(e) coal	No plans available yet
Totals ...	2,250	6,750	2,741	7,250	2,767	9,050		5,950				

(1) actual 45,000T: provision to dredge for 60,000T
(2) jetty could be extended to deeper water for 60,000T
(3) Data not yet available

(n) = new
(e) = existing
DW = deadweight

T = tons
DR = draught

The proposed new berths, two in number, for ships of up to 60,000 dwt will have two 30-tons unloaders and two slewing and level luffing cranes and will be part of a newly made-up area which will have space for large iron ore stock piles; the latter will be fed from the unloaders by conveyors. The existing breakwater is to be extended to provide protection for the new berths.

Piombino (Fig 5)

The existing iron ore reception jetty, taking ships of up to 16,000 dwt on either side and using four 10-tons cranes, will be extended at an angle to the present jetty and two 20-tons double-sided tower unloaders will be installed. The extension, by projecting into deeper water, will take larger bulk and ore carriers of up to 35,000 dwt. When the new extension is built, the existing berths will be used for the reception of scrap and the loading of finished products. Vessels will berth on both sides of the jetty and the ore stocking facilities will be fed from the unloaders by conveyors on the jetty.

Bagnoli (Fig 6)

The existing iron ore reception jetty takes ships of up to 16,000 dwt. A proposed extension is to project into deeper water (in line with the present jetty) and this will take ships of up to 45,000 dwt. The present jetty has four 12-tons unloaders and the proposed extension will have two 20-tons unloaders. Conveyors on the jetty will transfer the ore from the unloaders to the ore stockyards.

Taranto

No details of the projected scheme are yet available but provision is to be made to receive ships of up to 60,000 dwt.

As shown in Table II each port will, by 1965, have to take from three to six million tons of ore plus coal per annum. A rough calculation will show that the two new berths provided at each of the new ports will be capable of receiving this input with the 20-tons and 30-tons unloaders provided (Table III). For example, at Cornigliano 6 mn tons per year is 700 tons per hour, and allowing for the berth to be occupied only 50 per cent of its time to avoid undue delays, this amounts to 1,400 tons per hour for two berths, or 700 tons per hour per berth. Also, since there are two unloaders per berth, the hourly rate required per machine is 350 tons. The rating of the 20-tons

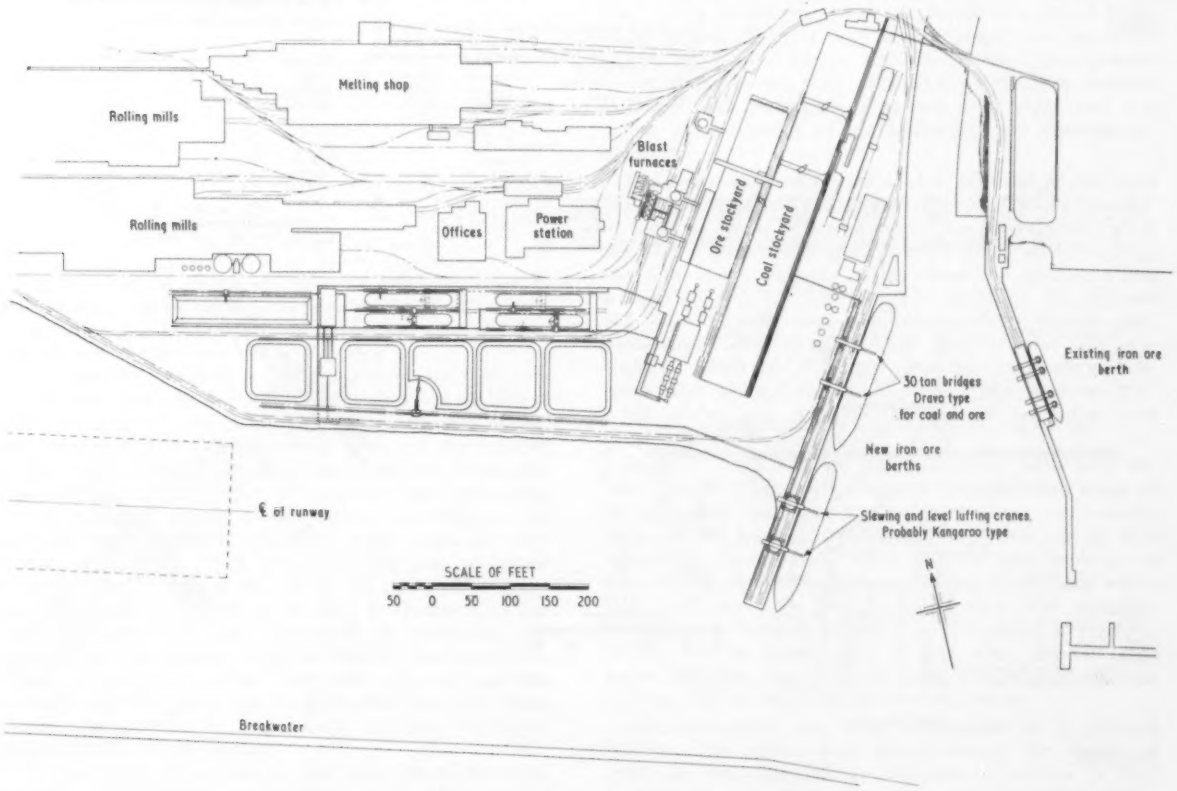

FIG 4. New iron ore berths at Cornigliano, Genoa

TABLE III

Italian Iron Ore Ports. Details of Equipment

Berth	*Wharf or Pier*	*Unloaders*	*Discharge*
Cornigliano (Genoa) 60,000-tons (dw) *Ore Titan.* Two ships each about 800ft long	**New Wharf** Single sided 530m (1,706ft) Limit of travel of cranes 450m (1,476ft) Wharf deck level 3.5m (11ft 8in) above water level Depth of water 12.5m (41ft)	Two 30 tons (gross) single sided bridge type rope-trolley unloaders (Dravo) with retracting boom Grab unloads to hopper at edge of wharf Span 20m (65ft 7in) overall height of machine 29m (95ft 1¾in) Waterside leg is 3m (9ft 10in) from edge of wharf or 4m (13ft 1in) from edge of fenders Maximum outreach from waterside leg is 24m (80ft) The number and lifting capacity of slewing and level luffing cranes is not yet fixed depending on the kind of traffic at this wharf. The cranes will probably be of Kangaroo type	Belt from hopper at edge of wharf takes materials to reversible shuttle belt In one direction:— Belt feeds into any of three rail wagons In other direction:— Belt feeds either of the two belts along the back of the wharf, three railway lines and one belt are within the span of the unloader; the other is outside the span
Piombino	**New Pier Extension** Double sided pier 234m (768ft) long to be extended at an angle of 43 deg Extension is 250m (822ft) (straight) excluding transition curve Width of pier 20.9m (68ft 6in)	**Two 20 tons double sided tower unloaders are located on the pier extension** Rating: 500 t/hr Lift: 28m (91ft 10in) Hoist: speed 140 m/m in (459.2 ft/min) motors 2×300 kW, 700 rpm Grab closing: motor 300 kW, 700 rpm Cross travel: 150 m/min (492 ft/min) motors 2×65 kW, 750 rpm) Long travel: 20 m/min (65.6 ft/min) 8 wheels per track motors 8×16 kW, 950 rpm four outer wheels driven on each Apron lift: motors: 2×63 kW, 975 rpm	Unloaders feed:— Three rail lines through hoppers, plus one belt through a further hopper
	Existing Pier	**Four 10 tons slewing and level luffing cranes** Lift: 33.5m (110ft) Radii: max. 25m (82ft): min. 9m (29ft 6in) Hoist: speed 60 m/min (197ft/min) motor 60 CV (59.1 hp) 730 rpm Grab closing: motor 70 CV (69 hp) 730 rpm Luffing: speed 50 m/min (164ft/min) motor 22.5 CV (22.2 hp) 950 rpm Slewing: speed 1.25 rpm motor 45 CV (44.4 hp) 960 rpm Long travel: speed 20 m/m (65.6ft/min) 2 wheels per track motor 2×22.5 CV (22.2 hp) 950 rpm	**Three double travelling hoppers** on old part of pier, feeding to four lines of wagons Hoppers (complete) 100m³ (3,500 cu ft) ore or 50m³ (1,750 cu ft) coal Long travel 10 m/min (32.8ft/min) motors 2×13.6 CV (13.4 hp) 960 rpm Cross travel: each hopper serves one of two wagon lines. motors 4×11 CV (10.8 hp) 960 rpm Wt carried with bridge in motion 120 t ore or 50 t coal Wt carried with bridge stationary 240 t ore or 50 t coal
Bagnoli	**Existing Pier** Double sided pier already extended by 100m (330ft)	**Four existing unloaders**	
35,000-tons dw "Flotta Lauro" type	**New Pier Extension** 100m (330ft) planned Width of pier 20.8m (68ft 6in) (min) Deck level: 8.5m (28ft) above water level	Two new 30 tons (gross) unloader (Dravo) rotating type to serve both sides of pier Span of unloaders (old and new): 16m (52ft 6in) Maximum outreach of bucket from edge of fenders 24m (78ft 8in)	Grab discharge into central hopper feeding any of three wagon lines by shuttle belt Wagons: four axle type Axle load: 25 t Wheel base (each bogie): 1.8m (5ft 10⅞in) Extreme wheels—distance between: 11.78m (38ft 7.75 in) Buffers—length over: 15.02m (49ft 3⅜in)
Taranto		The bridge unloaders for coal and iron ore will not be smaller than Cornigliano unloaders which should have a discharging capacity on best conditions of working of: 1,600 t/h for iron ore 1,300 t/h for coal	

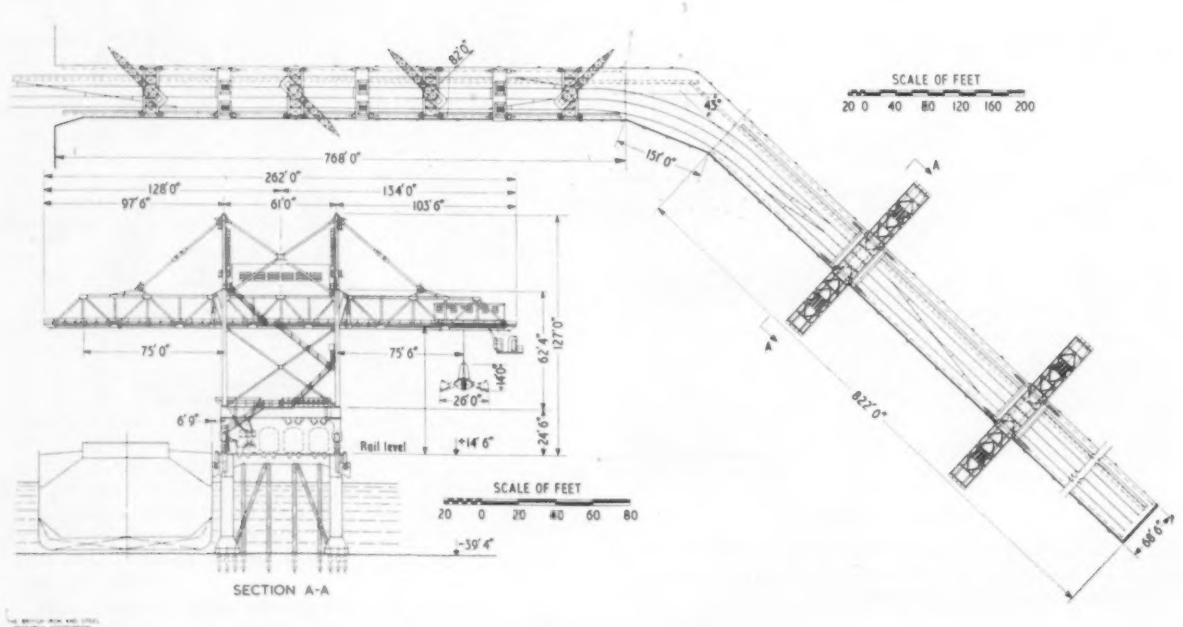

FIG 5. New iron ore berths at Piombino

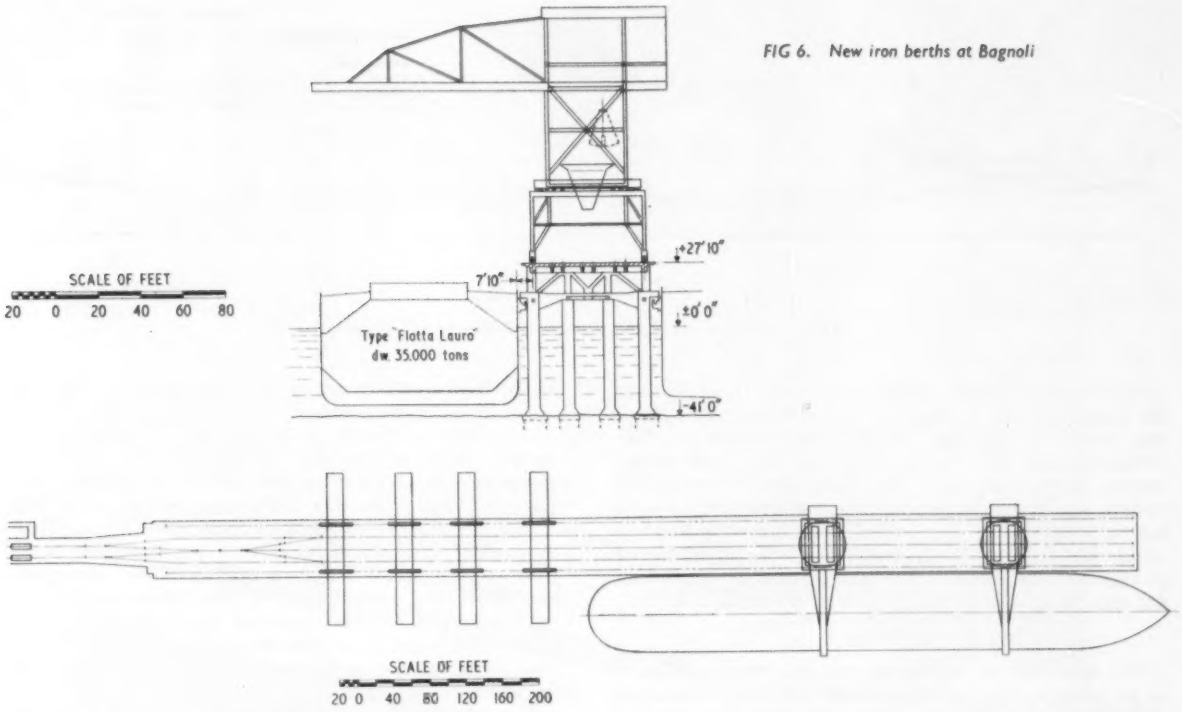

FIG 6. New iron berths at Bagnoli

unloaders is 500 tons per hour so that the 30-tons unloaders will be substantially more, namely 1,300/1,600 tons per hour. There will accordingly be a satisfactory margin of capacity. Similarly for the other ports.

Table IV—Finsider Group Fleet
(Owned and time-chartered over 2 years)

	1960		1965		
Type of vessel	*No*	*tons (dw)*	*No*	*tons (dw)*	*Remarks*
Bulk carriers (new)	4	16,000	4	16,000	Owned
Converted tanker (old)	1	18,000	1	18,000	Owned
Bulk carriers (new)	3	19,000	4	19,000	Owned
Bulk carrier (new)	—	—	1	22,000	Owned
Bulk carriers (new)	—	—	4	35,000	Owned
Converted tankers (old)	2	15,000	—	—	T chartered
Bulk carriers (new)	2	16,000	—	—	T chartered
Bulk carriers (new)	1	19,000	1	19,000	T chartered
Bulk carriers (new)	2	20,000	2	20,000	T chartered
Bulk carriers (new)	—	—	5	35,000	T chartered
Bulk carriers (new)	—	—	2	45,000	T chartered
Total	15	260,000	24	644,000	

Fig 7 is typical of the 45,000-tons bulk carriers and the principal characteristics of size, tonnage and speed are given in this illustration. Up to this tonnage, at least, engines and bridges are aft.

One noticeable feature is that these ships are bulk carriers having holds the full width of the ship and no tween-decks, in contrast with conventional ore carriers having two longitudinal bulkheads which limit the hold width to the middle half of the ship's cross-section. While the hold arrangement for iron ore carriers has advantages already discussed elsewhere[1], the bulk carrier (Fig 7), with its more capacious holds, can carry a full cargo not only of iron ore (about 150 lb per cu ft) but also of lighter material such as coal (about 56 lb per cu ft). This is, in fact, Italy's need, namely, to be able to transport in her own fleet some or all she requires of the American coal now available for export, which is cheaper than coal from France or Germany. These ships will also be available to ship iron ore from the long-distance iron ore fields which are growing in importance, namely, Labrador, Venezuela and West Africa.

Another point of interest is that apart from the eight existing carriers having deadweights ranging from 16,000 tons to 19,000 tons, including one converted tanker, Sidermar (the Finsider group organisation for the sea transportation of ore and coal) has made a firm decision to standardise the designs of the ships, which will be reasonably large by present-day standards. Apart from the relatively small wartime Liberty and Victory ships, this is one of few fleets of ten or more ships of large standard size. There are, of course, larger iron ore ships and tankers but except for the Hendy International Corporation, for example, they have mostly been isolated instances with perhaps one or two sister ships, and not within a fixed policy of standardisation and interchangeability.

The decision to adopt ships of 35,000 and 45,000 tons deadweight is of special interest in view of the diversity of views as to the optimum size. It has been shown[1, 7] that the advantages of size increase more slowly as the size of the ship approaches the higher ranges of tonnage. This is shown in Fig 8, where it will be seen that freight costs fall fairly rapidly until one reaches about 30,000 dwt, while from 40,000 tons to 70,000 dwt the curve falls only slightly. Ships of 35/45,000 dwt may, accordingly, be considered to be near the optimum size economically, when taking into account the cost of unloading and deepening of the ports[8].

However improved the home reception ports may be, and those in Italy will eventually accommodate ships of up to 60,000 dwt, the loading ports must be similarly deep. In this respect, the 35,000/45,000-tons carrier is a reasonable compromise, which will be able to berth at most of the prospective foreign loading ports from which Italy will draw her iron ore and coal. For example, Norfolk and Western Railways' new terminal at Norfolk, U.S.A., will be ready more or less when the first ship enters the fleet. At the same time freight costs for the journey will be near the absolute minimum.

The investment has been undertaken in a planned fashion. The orders were placed during the course of 1960, the first ship will be available for service in 1962 and the others will be ready in quick succession within the next two years.

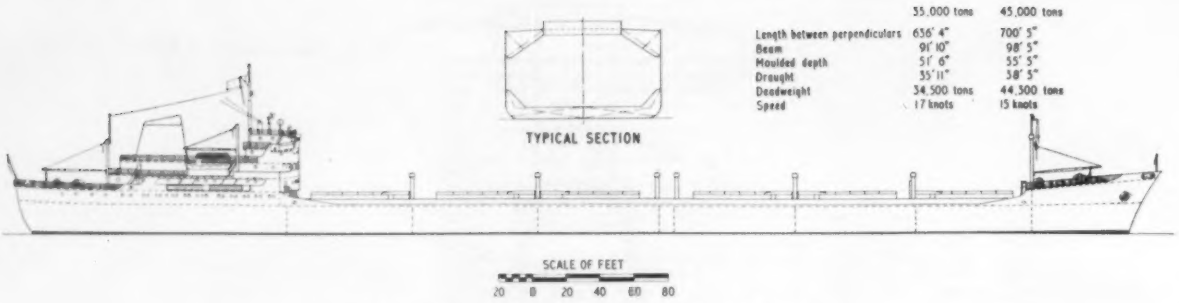
35,000 tons
45,000 tons
Length between perpendiculars 656' 4" 700' 5"
Beam 91' 10" 98' 5"
Moulded depth 51' 6" 55' 5"
Draught 35' 11" 38' 5"
Deadweight 34,500 tons 44,300 tons
Speed 17 knots 15 knots
TYPICAL SECTION
SCALE OF FEET
20 0 20 40 60 80

FIG 7. Arrangement of 35,000-dwt and 45,000-dwt bulk carriers

Taking into account the distance factor in addition to the actual tonnage to be moved, the fleet as shown above will cover 55 per cent of the requirements in 1965. Finsider group policy is to cover one-third with group-owned vessels, one-third with long-term time-chartered vessels, and one-third with vessels chartered on the market for single voyages or commitments not exceeding two years. Therefore, it is expected that if the expansion of production keeps pace with the estimates, commitments for three more 45,000-tonners will be undertaken in 1963.

Summary

The expansion of the Italian iron and steel industry is to be based on hot metal instead of the cold metal scrap now mostly employed. The hot metal production is to be concentrated in four large works, each located on the coast to avoid rail transit costs on its raw materials. These works will be fed with iron ore having a high iron content from the newer far distant ore fields and with coking coal at economic rates from America, both of the best quality at lowest world prices. Freight rates are to be kept to a minimum by transporting nearly 65 per cent of the imported ore and coal in vessels owned by the Finsider group and on long-term time-charter. The number of ships and their size and interchangeability will make it one of the largest fleets of uniformly large bulk carriers and it may well prove to be the most economical fleet on the sea. This fleet will, in fact, provide economical access to iron ore sources anywhere in the world at any distance. The only other European country with ships of this size is Sweden, and that country is interested only in shipping its own ores, which may not necessarily be the cheapest for Italy. Although 35/45,000 dwt ships have been embarked upon, it will be possible to use ships of up to 60,000 tons since provision has been made at the Italian home ports by deepening them to take 60,000-tons ships; in the meantime, most of the new foreign loading ports will take 35,000/45,000-tons ships.

In brief, without indigenous metallurgical coal or suitable iron ore, the Italian iron and steel industry will, in the course of only five years, more than double its steel production, and for this purpose will bring in between three and four times its present imports of iron ore and the necessary quantities of coking coal. This enormous expansion in so short a time is to be made possible by a planned decision to invest in a reasonably large number of iron ore (bulk) carriers, fairly large by present standards, with ports to accommodate them. The ports will, in fact, be available to large carriers under foreign flags, which is indeed a fundamental advantage.

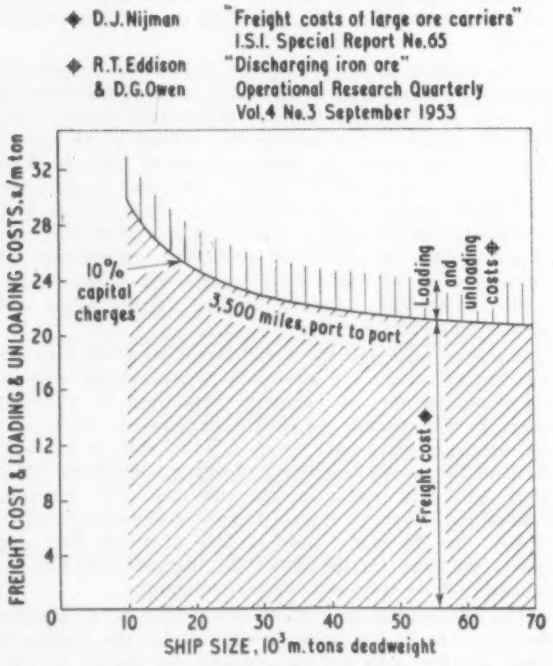
◆ D.J.Nijman "Freight costs of large ore carriers" I.S.I. Special Report No.65
◆ R.T.Eddison & D.G.Owen "Discharging iron ore" Operational Research Quarterly Vol.4 No.3 September 1953
FREIGHT COST & LOADING & UNLOADING COSTS, s/m ton
SHIP SIZE, 10³m.tons deadweight
10% capital charges
3,500 miles, port to port
Loading and unloading costs
Freight cost
0 4 8 12 16 20 24 28 32
10 20 30 40 50 60 70

FIG 8. Freight cost (1958) and loading and unloading costs in relation to ship size

Acknowledgments

The author wishes to acknowledge his thanks to the staff of the British Iron & Steel Research Association for their valuable assistance in the preparation of this paper.

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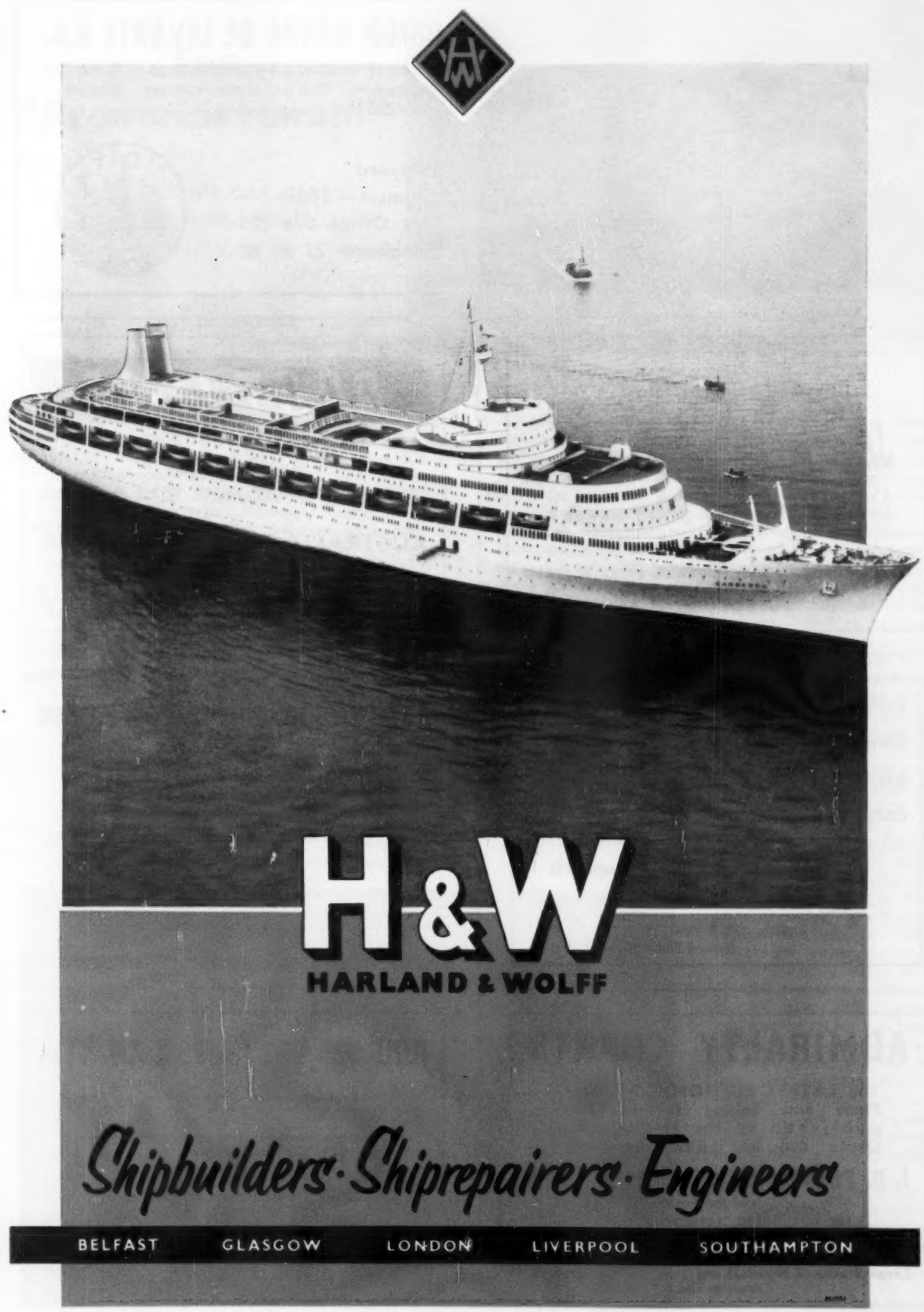
8 R. T. Eddison and D. G. Owen: "Discharging Iron Ore". *Operational Research Quarterly*, Vol 4 No 3, September 1953.

TO ENABLE bigger ships to get to the port of Pepel (in Nigeria) to load iron ore, dredging operations are now in progress for a straighter and deeper channel in the Sierra Leone River. It is expected some 1.5 mn cubic yards will have to be removed from the river bed.

MR JOHN S. MACLAY, Secretary of State for Scotland, will open the new Port Glasgow factory of Aircraft-Marine Products (Great Britain) Ltd on September 25. The new factory has an area of 60,000 sq ft enabling Aircraft-Marine Products (Great Britain) Ltd to increase production of solderless terminals, connectors and associated products to meet the increasing demand for its products in the electrical appliance, electronic, aircraft, shipbuilding, business machine, power generating and distributing services.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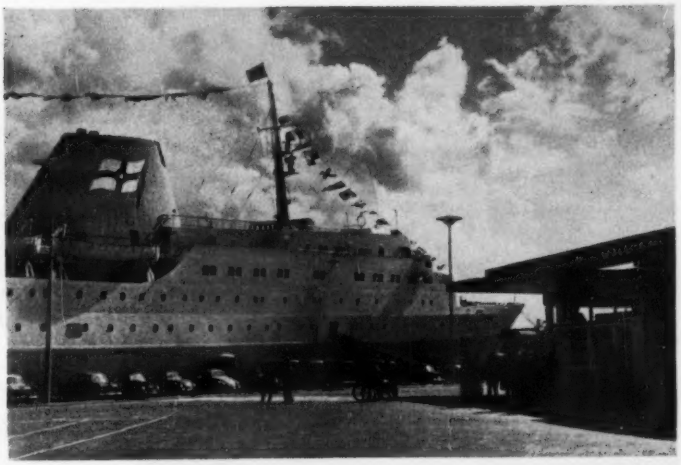
The "Kronprins Harald"

PASSENGER AND CAR CARRIER FOR OSLO-KIEL ROUTE



The "Kronprins Harald" discharging cars at the Oslo Kai at Kiel

MOST car ferries are designed essentially for short routes, where the accommodation provided for passengers can be limited. An exception to this rule is a vessel now in service on the route between Oslo and Kiel, a distance of about 360 miles. This ship, the *Kronprins Harald*, is owned by the Norwegian shipowner Anders Jahre, of Sandefjord. It was built earlier this year in Germany by Kieler Howaldtswerke, and entered service in May.

The *Kronprins Harald* can reasonably be described as a cross between a short-sea passenger liner and a car ferry. She has accommodation for 513 passengers, all but 58 of them having sleeping berths, while a car deck below the passenger accommodation provides space for about 120 average-sized cars. Her gross tonnage is 7,019 tons, and her deadweight 800 tons. She is a twin-screw motorship with a trial speed of 21 knots.

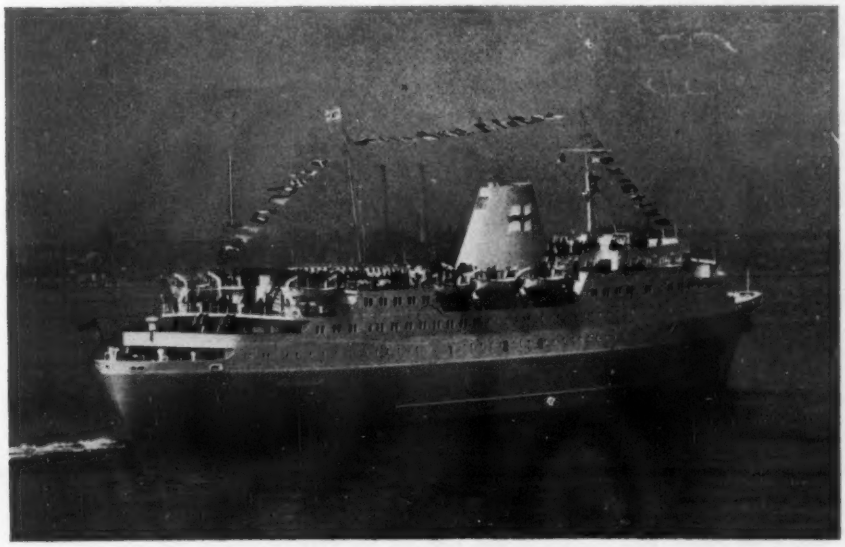
The principal particulars of the ship are as follows:

Length o.a.	453ft 6in
Length b.p.	402ft
Breadth moulded	59ft
Depth to main deck	23ft 11in
Draught, loaded	17ft 1in
Cargo capacity	2,950 cu ft

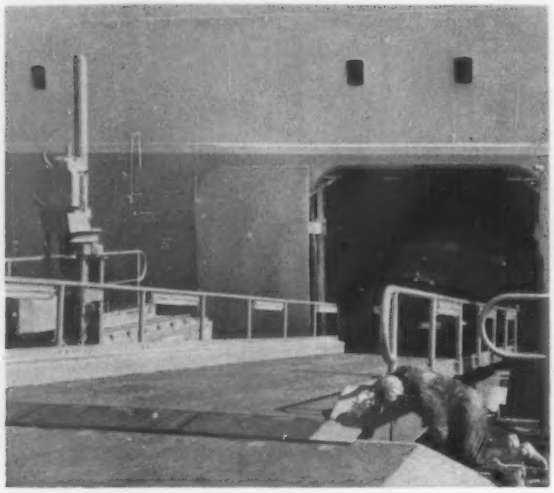
The *Kronprins Harald* was built to the classification and under the survey of Norske Veritas. She has three continuous decks and three superstructure decks. The strength deck is the car deck (C deck). Above this are A and B decks, and then the boat deck. Everything above the boat deck is of light alloy, including the funnel and signal mast. Beneath the car deck there are 11 transverse watertight bulkheads, giving a two-compartment standard of stability, and with no longitudinal watertight divisions that might cause a list in the event of flooding. Vehicles are loaded on to the car deck through two side doors, one on either side of the ship. It will be realised that the tidal range is negligible both at Oslo and at Kiel, and so the problems of adjusting the varying height of the ship to the quay are small. Each side opening has two sets of doors opening outwards, and the aperture is 13ft 9in wide and 12ft 2in high. At the quay installations at the terminal ports, bridges are placed between ship and quay, these engaging in brackets mounted externally on the ship beneath the side doors. The height of the apertures is sufficient to allow coaches and lorries of European standard dimensions to enter or leave the ship when the bridge has an inclination of 1 in 10.

With the exception of the car deck, for which special arrangements have been made, fire protection in the ship is by Method III. Not used in Great Britain, this method was generally used in French passenger ships until the *France*, which is a Method I ship with incombustible materials throughout. Method III has also been adopted for Norwegian passenger ships, and was in fact used for the British-built *Bergensfjord*. The car deck in the *Kronprins Harald* is entirely fireproof, and is fitted with a sprinkler system.

Passenger accommodation in two classes is provided, together with a number of de-luxe suites. There are



The ship on her delivery trip



A lorry leaving the "Kronprins Harald" by the starboard after side doors

three of the latter, together with a lounge that can also be used as an additional suite if it is not attached to one of the other suites. These suites accommodate a maximum of seven persons. There is then accommodation for 128 persons in first-class double cabins, some of them with private WCs. These cabins are situated at the forward end of the A and B decks, with public rooms on the boat deck above. These are sufficiently large to provide a seat for every passenger in the large lounge with bar and dance floor. There is also a dining saloon with seats for 84.

A total of 378 tourist-class passengers is accommodated aft on decks A and B. Of these, 320 are accommodated in double-berth cabins, and the remaining 58 have aircraft-type seats in a saloon designed for sleeping. Public rooms in this class include a lounge with seating for 147 and a verandah with seating for 48. A dining saloon seats 84. A Thermotank heating and ventilating system is installed in the passenger spaces. Officers are accommodated on the upper decks, and the crew on D deck beneath the car deck. Access to this deck from the upper deck is by means of fireproof stairways.

Howaldt-M.A.N. Diesel Engines

The propelling machinery comprises a pair of Howaldt-M.A.N. diesel engines developing 4,770 bhp each at 225 rpm, and driving four-bladed Zeise propellers. The electrical installation uses alternating current, with five diesel generators having a total combined output of about 3,000 kVA. The auxiliary diesel engines are also Howaldt-M.A.N. engines. They are of the type G6V 30/45A, and develop 715 bhp each at 375 rpm. Each generator has an output of 475 kW at this power. An emergency generator with an output of 125 kW is arranged to come on load within 6 seconds. As already stated, the Thermotank ventilation system employs heated air when necessary, and in winter about half the installed electrical capacity (i.e. about 1,500 kVA) is needed for air-heating purposes.

Navigating equipment includes two Decca radar sets (types 606 and TM909).

1

2

3

4

1. *Part of the first-class lounge*
2. *The conference room*
3. *The tourist-class dining saloon*
4. *Tourist-class bar and cafeteria*

Another Big Loss for BOAC

HUGE EXPANSION IN CAPACITY PLANNED

By D. M. Brace

HARD on the heels of the strike last month of engineering staff (with its obvious effect on the Corporation's financial position in the current year) came the news that the British Overseas Airways Corporation had had another bad year in the period which ended on 31 March 1961. A loss of £2,544,280 was recorded, but to put the figure into its proper perspective it must be said at once that a considerable proportion of this loss—£2,071,354 in fact—was attributable to the associated companies.

It is impossible not to feel sorry for BOAC, while at the same time recognising that at times a little more imaginative approach to its problems might have been to the airline's advantage. If one looks back over the post-war history of BOAC there can be little doubt that the corporation has been dogged by troubles all too frequently beyond its control. It had to start flying immediately after the war with aircraft that were nothing more than make-do conversions of bombers. Its first "real" airliner, the Avro Tudor, was a failure, with the result that it had to fall back on American machines. Then in 1952 came the world-beating Comet, which immediately put BOAC in the forefront of the world's major airlines; but less than two years after its entry into service the Comet was a "has been," and with its grounding the whole of the future planning of the airline was destroyed, for the expansion of existing services and the introduction of new ones had been based on the successful operation of a large fleet of Comets. Once more BOAC had to turn to the American aircraft industry for assistance. It was hoped that this would be only a temporary return to American aircraft, for the turbo-prop Bristol Britannia was coming along. But again disappointment lay ahead for BOAC. First the Britannia production programme fell far behind the planned schedule, with the result that schemes to introduce this new British airliner had to be put back, and then, just as it was belatedly about to enter service it was found that the Britannia's engines were prone to an unusual type of icing trouble. Again there were expensive delays. As if this chapter of incidents and delays were not enough, only last year the entry into service of the Boeing 707 fleet was put back by several months while the Air Registration Board had a number of modifications made to the aircraft. It is estimated that this delay lost the corporation some £2 million in revenue.

Losses of Associates

But it has not been with aircraft alone that BOAC has suffered. It would appear to have had more than its fair share of strikes (the recent engineers' strike is estimated to have cost the airline about £250,000 per day while it lasted), and there have been many international wrangles, such as when the Americans withheld permission for some time to operate across the Pacific. To all these factors must be added probably the most important, and certainly the least controllable—an airline with a route pattern reaching to the four corners of the world is extremely susceptible to changes in the political climate and their effect on the movements of people and goods.

While the majority of those factors had no effect on last year's results, they do, I think, in some measure answer the many critics of BOAC, who, year after year, are harshly critical when adverse results are announced.

In the year to March 31 last, on its own operations BOAC made a surplus on operating account of £4,264,219. The charge against the year's operations for interest payments on capital amounted to £4,737,145, which meant that the corporation finished the year with a deficit of £472,926, compared with a surplus of £277,813 in the previous year. But the associated companies had a total loss of £2,071,354, which was well over £1 million in excess of the previous year's figure of £959,746. The results of the various associates were as follows:

	BOAC share of loss
Aden Airways	£58,076
Bahamas Airways	£405,728
Borneo Airways	£7,326
British West Indian Airways	£645,243
Cathay Pacific	£4,688 (received)
Fiji Airways	£5,124
Gulf Aviation	£9,342
Kuwait Airways	£293,444
Malayan Airways	(not yet known)
Middle East Airlines	" " "
Mideast Aircraft Service	" " "
Turkish Airlines	" " "

Commenting on these associated companies' results Sir Matthew Slattery, who took over the chairmanship of BOAC just about a year ago, said the corporation was "deeply concerned". He said an exhaustive examination of the associated companies had been carried out and vigorous steps were being taken to remedy the situation. He would not, however, give any indication of just what these steps would entail.

Mainly as a result of the delivery of a fleet of 15 Boeing 707s the Corporation increased its total scheduled capacity by a record of 31.8 per cent over the previous year (which had itself been nearly 24 per cent greater than that of 1958-59). The delay in the introduction of these aircraft into trans-Atlantic service as a result of the Air Registration Board's requirement for a number of modifications to be made resulted in a considerable financial loss. Many bookings made before the delay was announced had to be transferred to other airlines. It is estimated that this delay with the Boeing 707s cost BOAC about £2 mn in lost revenue.

Fare reductions in the lower, more popular classes of travel caused a further sharp slide from first-class to economy-class travel during the year. Of the 785,082 passengers carried on BOAC scheduled services in 1960-61, more than three-quarters travelled by economy or tourist class, and less than one-quarter by first class. The total of 887,057 passengers carried (on scheduled and charter operations) represented a 41.7 per cent rise on the previous year's total of 626,072.

Increased Cargo Business

Another aspect of the corporation's business that showed a large-scale increase was the carriage of cargo. During the year 12,921 tons of cargo and 5,538 tons of mail were carried; these totals compared with 10,302 tons and 4,562 tons, respectively, in the previous year. Cargo revenue in the year covered by the report amounted to £6,679,481, which was 25.5 per cent up on the previous year. During the year the corporation greatly increased its cargo capacity on the North Atlantic. The Boeing 707s, with their large under-floor holds, doubled the capacity which the airline had previously been offering across

the Atlantic, but more recently this capacity was further increased by the introduction of a twice weekly all-cargo service operated by DC-7F aircraft.

At the end of the year under review the fleet of BOAC comprised 15 Boeing 707s, 19 Comet 4s, 17 Britannia 312s, 14 Britannia 102s, eight DC-7Cs and two DC-7F cargo aircraft. To this list must be added a further three Boeing 707s which the Corporation has recently ordered. And later there will be added the very big fleet of Vickers VC.10s. The Corporation originally ordered 35 standard VC.10s, with an option on a further 20 aircraft. The order was extended in June 1960 by the addition of 10 of the aircraft developed by Vickers and known as the Super VC.10, thus making a total of 45 aircraft on order, and leaving an option for a further 10 outstanding. Subsequently the results of the development work showed that a more flexible aeroplane than the original Super VC.10, which was designed to operate specifically from very large airfields, could be produced for use over the majority of the Corporation's route network. BOAC and Vickers found that the modified Super VC.10 could be produced at an earlier date. Consequently it was agreed to reduce the order for standard VC.10s from 35 to 15, and to substitute an order for 30 of the modified Super VC.10s for the 10 Super VC.10s in their original form. The total order therefore remains at 45 aircraft.

	Standard VC.10	*Super VC.10*
Original orders	35	10
Revised order	15	30
Specification		
Passenger seats (all economy)	135	163
Max. take-off weight	299,000 lb	322,000 lb
Span	140ft	140ft
Length	158ft	171ft
Payload volumetric	37,400 lb	49,600 lb
Payload structural	32,000 lb	45,200 lb
Delivery	Nov. 1963 to Aug. 1964	Oct. 1964 to Oct. 1966

Commenting on the purchase of the VC.10s, the report states: "We are looking forward to receiving our VC.10 aircraft, which—together with the Rolls Royce-powered 707s—will give BOAC a really formidable fleet. The total cost of the VC.10s, together with their engines, is expected to be £128 mn. In addition, spare Rolls-Royce Conway engines are expected to cost just over £10 mn and other spares over £13 mn, making a total of £151 mn, which is approximately the equivalent of BOAC's total capital at present. Moreover, we anticipate that we shall pay the British aircraft industry some £3.3 mn a year for the replenishment of spares.

"Our present plan is to begin VC.10 services in 1964 on the North Atlantic and, later in the year, the African routes—with the standard version, to be replaced on the Atlantic by the Super VC.10s as they are delivered. Delivery of all the VC.10s is due to be completed by the end of 1966-67. We have planned to have at that time up to 22 Super VC.10s operating alongside the 707s on our Western routes with the balance superseding those Comets not already displaced in the Eastern and Southern hemispheres by the Standard version. BOAC's scheduled passenger services would then be operated entirely by VC.10s and 707s, the former providing two thirds of the total capacity and the latter one third. Such would be the potential of the BOAC fleet that in the following year an estimated total of over 1,500 mn capacity-ton-miles would be produced on scheduled services—70 per cent by VC.10s and 30 per cent by 707s—two and a half times the capacity output of 1960-61. Plans for full Super VC.10 Atlantic operations alongside the 707s in 1966-67 entail these two types providing between them more than a million seats on the routes between Britain and the American eastern seaboard, the Mid-West and Canada—a number 2¼ times greater than that being provided by BOAC in 1961-62."

The impact of the jet airliners on the speed of air travel is evident when one considers that the average block-to-block speed of BOAC's aircraft during the year was 347 mph, compared with four years ago (when many piston-engined aircraft were operating) when the speed was 224 mph.

The report comments at some length on BOAC's attitude towards the independent airlines. It states that the corporation believed that the establishment of the new Air Transport Licensing Board was not intended to have an adverse effect on BOAC. This belief was confirmed by statements made by the Minister of Aviation in the House of Commons on 2 March 1960. The Act, states the report, does not require the Licensing Board to make room for independent companies at the expense of BOAC. In fact, the Board is directed to exercise its functions "in such a manner as to further the development of British civil aviation." This would not be achieved, it is contended, by curtailing the Corporation's development of its routes. BOAC placed great reliance on those provisions of the Civil Aviation (Licensing) Act that enjoined the Board to have particular regard to such questions as material diversion of traffic from existing services and the financial commitments and commercial agreements reasonably entered into by existing operators.

On this basis, states BOAC, if further independent operations were to be authorised, it would only be if an existing or potential demand for the new service had been demonstrated and if there would be no wasteful duplication or material diversion of traffic from existing services. The decision of the Licensing Board to grant a licence to Cunard Eagle Airways to operate services to New York and the eastern seaboard of the United States came as a surprise and disappointment.

Future Growth Potential

Though the numbers of passengers carried by BOAC fall far below the British European Airways level, it may not be realised just how big, and internationally important, an airline is BOAC. The size of airlines can be (and is) measured in many ways, but the most effective ways are a comparison of the output they produce for sale to the public (i.e. capacity ton miles) and of the loads they carry (load ton miles). On either basis BOAC takes second place only to Pan American World Airways on international operations and provides more than half of Britain's air transport effort. Although these conclusions are drawn from 1959 and 1958 figures, relative positions are believed not to have changed appreciably since those times. They take no account of Russian and Chinese air transport, for which figures are not available. On the basis of latest published figures, BOAC's operations represent some 55 per cent of Britain's total civil air transport effort, the remainder being divided almost equally between BEA (23 per cent) and the independents (22 per cent).

Most other major international airlines have now virtually completed their re-equipment programmes. The majority of the big long-range jet airliners that they ordered some years ago are in service, and unless there is another buying spree (a most unlikely event, as many airlines are finding it difficult to fill the capacity they are already offering) BOAC's position among the world's international carriers seems likely to become even more important in the years that lie ahead. The huge fleet of VC.10s, with their enormous carrying capability, will greatly increase the Corporation's capacity ton miles. Given a widespread introduction of lower fares, and an associated growth in business, by the mid-1960s BOAC's annual total of passengers carried on international flights should have increased beyond all recognition from last year's figure of 887,057.

Air Charter Market

UNCERTAIN FUTURE FOR AIR BROKERS

By a Special Correspondent

After a shaky first week, London's air charter market gradually regained its strength during the remainder of July and the month ended with the market on a firm tone, leaving brokers with hopes of a reasonably sustained period of settled conditions. This brief, perhaps over-simplified, picture of the market in July, however, does not have regard for the uneasy feeling that for some considerable time has existed in the minds of a good number of those working the air charter market. Their concern is for the future of the air section of the Baltic Exchange, a concern that has been generated by the confused state of affairs that has developed over the past year or so, a situation that, far from resolving itself, has if anything become more uncertain now than at any time. It is, incidentally, a concern that is felt in varying degrees by broker, operator and charterer alike.

Shortly after the war, when commercial aviation really began to get into its stride, the air side of the Baltic established for itself a worldwide reputation as the tramping market of the air. In those early days potential aircraft charterers were groping in the dark, unaware of where to go for the right type of aircraft and perhaps even doubting the merits of using aircraft. On the other side, the airlines, and particularly the "independents," had not developed their sales organisation and were unsure of where to look for business. Under these conditions the air side of the Baltic came into its own, and with the experience it had gained over many years in serving shipping it was able to prove a similar specialised market service for aviation.

Today the position has changed. Some companies, especially tour operators, who have been chartering aircraft for a number of years, now feel that they have sufficient experience to dispense with the services of an air broker and to go to the airline direct, at least on occasions. Similarly, some of the airlines now rely to a less extent on the air broker. Whether this is in the long run a wise policy for those charterers and operators concerned is not going to be debated in this column, but what it does add up to is a loss of business for the air section of the Baltic.

New Difficulties for the Broker

Against this trend there is now the extremely fluid position among the independent airlines, creating another uncertainty. At present, the charterer generally has the upper hand in any bargaining, there being a reasonably good supply of aircraft, apart from peak holiday periods. If the "independents" should be successful with many of their applications, currently being considered, to operate scheduled services, the position could be reversed in the charter field, with charterers chasing all too scarce aircraft. But at the present nobody, including the airlines, knows in what direction things are going to move, which is not very comforting for the broker. In addition, of course, some of the airlines, if they are sufficiently successful with their applications for scheduled services, may not continue to show much interest in charter work, although this is unlikely.

The current charterers' market has forced one or two operators to accept rates which, in the opinion of some in the business, leaves little or no margin for any unforeseen hitches, such as a technical delay. The acceptance of such rates could well prove fatal to an airline that was already experiencing a struggle to stay alive: it could also give charterers a false impression of what are reasonable rates. Almost every year, during the leaner months of winter, there is at least one independent airline that succumbs, which all adds to the instability of charter operations. These are only some of the imponderables that are currently affecting charter operations, and it is against this background that the air broker at the Baltic is carrying out his day-to-day business and at the same time trying to forecast his future.

The Market in July

Despite these oppressive problems London's air charter market continues to function, as July activity proved. During the "shaky" first week already referred to, the shortage of inquiries for long-haul work that had become evident at the end of June continued to depress the market, and this situation appertained also to the usually active Far East section. What little ships' crew work was available was mainly for short movements within Europe and there was little difficulty in fixing this business with twin-engined equipment. Lambert Brothers Ltd reported at this time that other business included a "fair" amount of inquiry for the transport of groups of passengers, including schoolchildren, to the Continent during the spring and summer of next year. Operators were, however, reluctant to commit themselves to isolated flights of this nature at such long notice: they wanted to be more sure of their major 1962 commitments.

During the following week the market steadied a little, partly due to a bigger flow of inquiries for the transport of ships' crews. Most of these inquiries were in the Far East section, but in spite of this increased flow there were more than adequate numbers of aircraft to handle the business and so charterers were still able to get rates nearer their choosing. At about the same time there was a demand by operators for equipment to undertake sub-charter work within Europe at the following weekend, but few operators were able to get what they wanted.

The improvement in inquiry continued through the third week, much of the fresh inquiry again being for ships' crews. It was then that the strike of BOAC technicians caused a temporary drain on the available aircraft, but nevertheless the market generally was able to report a healthy fixture list. Much of the activity in ships' crew movements was on the Far East route, a good deal of the inquiry being for end-July/early-August work. There was also a certain amount of interest in westbound trans-Atlantic traffic.

Although the fixture-to-inquiry ratio was probably lower during the last week of July, an atmosphere of high activity continued to pervade the market, with a really healthy influx of new inquiry. The comparatively slightly lower level of fixtures reflected the nature of the inquiries. Inquiries for ships' crew movements on the Far East route—particularly westbound during August and September—once again dominated the market. As has happened on previous occasions, some of this inquiry was duplicated, presenting an exaggerated picture of the demand. On the market generally there was an air of optimism as July closed.

NEW CONTRACTS

Shipowners	No. of Ships	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B × D.(dft.)	Delivery	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Yards in Great Britain and Northern Ireland										
British Transport Commission	1	Pass. cargo	—	150	—	12	Diesel	—	—	Hall Russell & Co
Overseas Yards										
London & Overseas Freighters	*2 (317/8)	Cargo	14,800	—	—	—	Sulzer diesel	—	Shipbuilders	Kon. Mij. De Schelde
Det Forenede D/S	1	Refrig. cargo	2,000	—	1962	—	B & W diesel	—	Elsinore S. B. Co	Aarhus Flydedok
Det Forenede D/S	1	Refrig. cargo	2,500	—	1963	—	B & W diesel	—	Elsinore S. B. Co	Aalborg Vaerft
Kosangas A/S	1	L P G tanker	—	—	—	—	Diesel	—	—	Aarhus Flydedok
Rederi A B Svenska Lloyd	1	Cargo	4,575	—	1962	15.75	8 cyl G.V. diesel	3,000	Shipbuilders	Lindholmens Varv

* Alteration of order from one 32,000 tons tanker (Yd No 302)

LAUNCHES

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Yards in Great Britain and Northern Ireland										
July —	Storgram Trawlers	*Atlantic Dolphin* (69)	Stern trawler	(300)	—	—	Diesel-electric	800	Paxman/ Ricardo	J. S. Doig (Grimsby)
July 12	John Harker	*Glaisdale H* (B 294)	Tank barge	(300)	—	—	Diesel	—	—	John Harker
July 27	Air Marshal Sir John Grandy	*Astra Volanto* (194)	Yacht	58 (TM)	—	—	Tw.-scr. diesel	—	—	Herd & Mackenzie, Buckie
July 28	Indo-China S.N. Co	*Eastern Rover*	Cargo	7,000	380 × 57 × 35.25 (23.42)	—	4-cyl Doxford diesel	4,600	Hawthorn Leslie	Jos. L. Thompson & Sons
July 28	Hudson Bros Trawlers (Ross Group)	*Cape Otranto*	Trawler	—	193.67(212.33) × 34 × 17.25	—	Diesel-electric	—	Mirrlees/ Brush	Cook Welton & Gemmell
July 31	Devanha Fishing Co	*Kinellan*	Trawler	(214)	(116) × 23 × 12	—	6-cyl diesel	675	Crossley Bros	John Lewis & Sons
Overseas Yards										
June 9	Oceanic Shipping Corp	*Oceanic* (53)	Cargo	15,240 (10,960)	—	—	Sulzer diesel	—	Shipbuilders	Iino S. B. & E. Co
June 13	Daiichi Chuo Kisen	*Bintan Maru* (787)	Cargo	15,000 (10,000)	—	—	Sulzer diesel	—	Shipbuilders	Uraga Dock
June 13	Govt of Indonesia	*Multatuli* (811)	Cargo	4,100	—	—	Sulzer diesel	—	Shipbuilders	Ishikawajima-Harima, H.I., Tokyo
June 14	Sea Enterprises Corp	*Delphic Miracle* (3813)	Bulk carrier	20,930 (12,800)	547.58 × 72.1 × 41.5 (30.5)	15	B & W diesel	8,750	Shipbuilders	Hitachi S. B. & E. Co Innoshima
June 15	Kyowa Sangyo Kaiun K.K.	*Eiwa Maru* (3920)	Cargo	3,230 (2,130)	—	—	Diesel	—	Niigata Engineering	Hitachi S. B. & E. Co, Mukaishima
June 15	Hokkai Unyu K.K.	*Shinsei Maru No 17* (100)	Cargo	(2,840)	—	—	Diesel	—	—	Onomichi S. B. & E. Co
June 20	Viadoro Cia. Nav.	*Amorgos* (804)	Ore carrier	22,550 (13,600)	548 × 75.5 × (29.9)	16.5	Geared turbine	12,000	Shipbuilders	Ishikawajima-Harima H.I., Tokyo
June 28	Sohgo Kisen K.K.	*Sohgo Maru* (136)	Cargo	5,180 (3.35)	—	—	Diesel	—	—	Sasebo H. I. Co
July —	U.S.S.R.	*Poltava*	Cargo	18,000 (d'sol)	—	—	Diesel	—	Russkij	Nosenko Shipyard
July —	Govt of Rumania	*Timisoara*	Cargo	(3,096)	—	—	Diesel	—	—	Galatz Shipyard
July 7	Hamburg-Sudamerikanische	*Cap San Marco* (1143)	Cargo	10,300 (9,500)	473.9(577) × 70.25 × (28.25)	20	M.A.N. diesel	11,650	Shipbuilders	Kieler Howaldtswerke
July 8	C.A.M.P.S.A.	*Camporrajo* (76)	Tanker	9,300 (6,500)	427.25 × 56.5 × (25.42)	13.75	Diesel	4,200	Burmeister & Wain	Union Navale de Levante
July 13	A/S Det Dansk-Franske D/S	*Holland* (660)	Cargo	6,763 (4,700)	—	—	B & W diesel	—	Shipbuilders	Mitsui S. B. & E. Co
July 13	U.S.S.R.	*Khabarovsk*	Pass.	(4,720)	360.95 × 53.9 × 33.75 (16.95)	18	Tw.-scr. diesel	8,000	M.A.N.	Mathias Thesen Werft
July 15	U.S.S.R.	*Dudinka*	Bulk carrier	9,500 (7,265)	426.5 × 59 × (26.2)	14.3	Diesel	5,400	M.A.N.	Warnow Werft
July 15	Empresa Lineas Maritimas Argentinas	*Lago Traful* (163)	Cargo	11,000 (7,500)	471 × 64 × (27)	16.5	Diesel	10,300	Fiat	Brodogradiliste Split
July 20	Lykes Bros S.S. Co	*Leslie Lykes* (4584)	Cargo	11,000 (10,000)	470 × 69 × 41.58(29.5)	17	Geared turbine	9,900	G.E.C.	Bethlehem-Sparrows Point

TRIAL TRIPS

Date	Shipowners	Ship's Name and/or Yard No.	Type	Tons d.w. (gross)	Dimensions (ft.) L.b.p.(o.a.) × B. × D.(dft.)	Speed (knots)	Propelling Machinery	Total h.p.	Engine Builders	Shipbuilders
Yards in Great Britain and Northern Ireland										
July —	Bunch Steam Fishing Co (Crampin Group)	*Padgett* (971)	Trawler	(420)	137.2(152.33) × 28 × (14.5)	—	6 cyl Werkspoor diesel	1,050	C. D. Holmes	Cook Welton & Gemmell
July 27	Bank Line	*Larchbank* (880)	Cargo	12,100 (8,472)	480 × 62 × 38.5	—	4-cyl diesel	4,800	Shipbuilders	Wm. Doxford & Sons
Aug. —	Mersey Docks & Harbour Board	*Mersey Compass* (432)	Dredger	(2,000)	274 × 40.5 × 19	—	Tw.-scr. diesel-electric	1,000	Paxman/ G.E.C.	Ferguson Bros
Aug. —	Port of London Authority	*Long Reach* (796)	Dredger	(1,940)	(263.75) × 45.5 × 19(15)	—	Tw.-scr. triple-expn. steam	—	Shipbuilders	Fleming & Ferguson
Overseas Yards										
June 20	Moore-McCormack Lines	*Mormacglen* (75)	Cargo	10,500 (9,200)	458 × 68 × 41.5(28.5)	18	Geared turbine	11,000	G.E.C.	Todd Shipyards
June 30	Moore-McCormack Lines	*Mormacscan* (620)	Cargo	10,500 (9,200)	548 × 68 × 41.5(28.5)	18	Geared turbine	11,000	G.E.C.	Sun S. B. Co
July —	A. P. Moller	*Niels Maersk* (161)	Cargo	4,320 (1,985)	279(300) × 47.25 × 28.25(23.5)	13.5	7-cyl diesel	2,530	M.A.N.	Bijkers A.B.
July 4	Trelleborgs Angfartygs	*Lake Ontario* (180)	Refrig. cargo	7,800 (8,300)	480(492.2) × 64 × 39.5(28)	20.84 (T)	9-cyl diesel	10,900	Gotaverken	Oresundsvarvet
July 6	Nippon Yusen Kaisha	*Saikyo Maru* (1560)	Cargo	11,700 (9,520)	475.75 × 64 × 40.33 (29.5)	20.5	9-cyl U.E.C. diesel	13,000	Shipbuilders	Mitsubishi S.B. & E. Co, Nagasaki
July 6	Skibs A/S Awilco, Oslo	*Wilchief* (196)	Tanker	18,840 (12,400)	(560) × 69.75 × 39.67 (30.67)	15.75	7-cyl G.V. diesel	8,750	Shipbuilders	Uddevallavarvet
July 7	I/S Trans-Kosan (A/S Kosangas)	*Lili Tholstrup* * (114)	LPG carrier	735	191.33(214.33) × 31.2 × 18	12	8-cyl diesel	1,250	M.a.K.	Aarhus Flydedok
July 11	Kolner Reederei	*Anneliese* (331)	Bulk carrier	28,700 (19,200)	597(629.5) × 84.5 × (34)	15	6-cyl. diesel	9,860	M.A.N.	Rheinstahl Nordseewerke

MARITIME NEWS IN BRIEF

THE UNION-CASTLE LINE intends to withdraw the liners *Durban Castle* and *Warwick Castle* from service in April and June 1962, respectively. Thereafter, *Braemar Castle*, *Kenya Castle* and *Rhodesia Castle* will be operated in a passenger and cargo service between London and Durban via East Africa and Portuguese East Africa, with possibly one or two round-Africa voyages in the period December/February each year. During the rest of the year passengers will still be able to travel round Africa by transferring at Durban to or from vessels operating in the South African mail service.

MR F. R. STOCKDILL has been appointed to the boards of the Atlantic Steam Navigation Co Ltd and of the company's subsidiary, Frank Bustard & Sons Ltd. Mr Stockdill, assistant general manager of British Railways, London Midland Region, succeeds Mr E. W. Arkle, who has retired from the board following his retirement as chief traffic officer, British Railways Central Staff.

MR E. E. METZ has been appointed Acting Deputy Maritime Administrator, Maritime Administration, U.S. Department of Commerce. Mr Metz has been serving as Chief of the Office of Government Aid of the Maritime Administration since 30 June 1957.

MESSRS J. A. MACCONOCHIE, Captain A. E. Lockhart, H. H. Burcher, and F. L. Banting have been appointed directors of the Aberdeen & Commonwealth Line Ltd. Messrs J. A. MacConochie, W. L. Jones and G. R. Ray have been appointed directors of Geo. Thompson & Co Ltd.

THE DEATH has occurred of Sir Westcott Abell, at the age of 84. Sir Westcott, a former chief ship surveyor to Lloyd's Register of Shipping, was for many years a leading naval architect and was, in later years, Professor of Naval Architecture of Armstrong College, Newcastle.

TWO NEW executive directors have been appointed to the board of the Cape Asbestos Co Ltd. They are Mr L. C. Dawson, responsible for the group's Engineering Division; and Dr R. Gaze, the group's chief scientist.

DR J. D. CARRABINO, a University of California professor, research engineer and expert on harbour problems, has been elected president of the Los Angeles Board of Harbour Commissioners.

MR W. F. KNOWLES, who was Hull manager of Houlder Brothers & Co Ltd from 1925 until his retirement seven months ago, has died.

THE DEATH has occurred of Mr C. J. M. van der Hidde, managing director for external relations of L. Smit & Co's Internationale Sleepdienst, Rotterdam.

DIPL ING D. STIPETIC has been appointed Principal Surveyor for Lloyd's Register of Shipping in Yugoslavia.

MR J. E. SMITH has succeeded Dr B. L. Goodlet as managing director of the Brush Electrical Engineering Co Ltd. Dr Goodlet will, however, remain with the company as vice-chairman. Mr Smith was with the Richardsons Westgarth group for 29 years and held a number of managerial posts before his appointment as managing director of one of their major subsidiaries. His last post was that of managing director of the Natoinal Gas & Oil Engine Co Ltd, another Hawker Siddeley Group company. He retains his directorship of Hawker Siddeley Industries

THE CHAMBER OF SHIPPING index number of tramp shipping freights for June is 108.7 (1960 = 100). The index number of tramp time charter rates for motor ships is 111.2.

WYRE TRAWLERS LTD, a subsidiary of Associated Fisheries Ltd, have acquired a controlling interest in the share capital of James Robertson & Sons (Fleetwood) Ltd.

LINJEBUSS INTERNATIONAL A/B, Helsingborg, which is owned by Stockholms Rederi A/B Svea, has acquired the company, Skandinavisk Linjetrafik, owned by Mr Jörgen Jensen, Copenhagen. The Danish firm has for some years been operating a ferry service between Tuborg and Landskrona.

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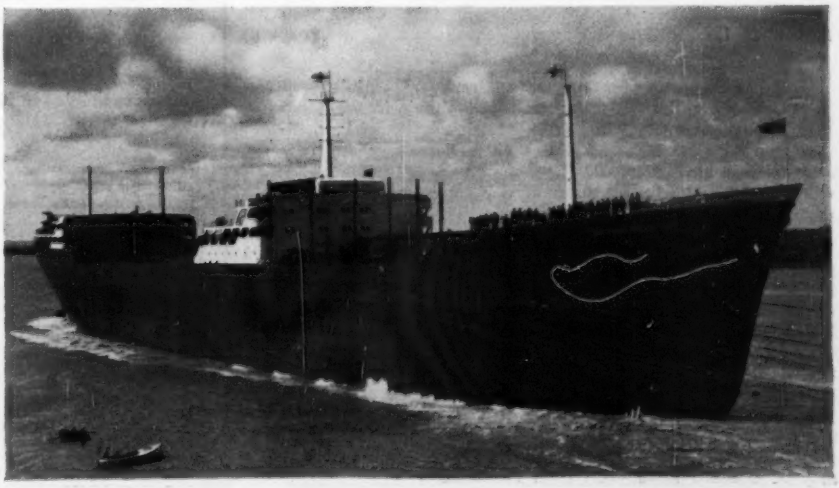
THE Nigerian Government is to take control of the Nigerian National Line, a shipping venture between the Government and two British lines, Palm Line Ltd and Elder Dempster Lines Ltd who have agreed to sell their shares, totalling 49 per cent, to the Nigerian Government. The Nigerian National Line was set up in 1958 with the Federal Government owning 51 per cent of the shares, Elder Dempster 30 per cent and Palm Line 19 per cent.

THE RIX HUYSER LINE LTD, a new shipping company formed by Hull, London and Dutch shipping interests, has inaugurated a new weekly cargo service between Rotterdam and Hull. Offices of the company are at Carmelite House, Posterngate, Hull. Sailings are to be from Rotterdam every Tuesday and Hull every Saturday.

THE Shipbuilders Council of America has moved to Riddell Building, 1730 "K" Street, N.W., Suite 1202, Washington 6, D.C. (Telephone: Federal 8-7722).

LAUNCH OF THE "BRITISH PRESTIGE"

The BP tanker "British Prestige", latest of the company's 42,000-tons class, was launched at the end of last month by Lady Robbins, wife of Lord Robbins, a director of the owning company, at the Barrow shipyard of Vickers-Armstrongs (Shipbuilders) Ltd. The principal dimensions are length overall 710ft, length b.p. 665ft, breadth moulded 95ft, depth moulded 51ft and summer draught about 38ft 8in. The main machinery consists of a set of double-reduction geared turbines of Vickers-Pametrada design developing a service power of 16,000 shp at 105 rpm. The sea speed will be about 16 knots



MR T. H. DOBBIN has been elected a director of the Maryland Shipbuilding & Drydock Company, of Baltimore, U.S.A. Mr Dobbin is president of the Baltimore National Bank and fills the vacancy caused by the death of Mr Howard Bruce, for many years chairman of the board. He is also a director of other firms and organisations connected with finance

Two 40,000-tons oil tankers owned by the Niarchos group are to be lengthened by 50ft and converted into ore carriers by Vickers-Armstrongs Ltd, Walker-on-Tyne. The work will involve removing the forepart of the ships and building new ones 50ft longer. These will be joined to the after sections in the Palmers Hebburn Dock.

THE SUNDERLAND OFFICE of the Shipowners' Mutual Strike Insurance Association Ltd is now Refuge Assurance Buildings, St Thomas Street, Sunderland (telephone: 56714).

BAMBERGERS LTD announce that the name of their subsidiary Lee Cases Ltd, has been changed to Bambergers Pallets & Cases Ltd.

ISRAEL'S PARLIAMENT has passed the Port Authority Bill which will now lead to the setting up of an autonomous statutory corporation to operate the country's harbours. The Authority will not be bound to the budgetary procedures of the Government department, but will work along the lines of a commercial company.

THE LONDON OFFICES of Rhodes, Brydon & Youatt Ltd have moved to 45/51 Leman Street, London E1 (telephone: Royal 1212).

THE MARYLAND PORT AUTHORITY are to open a new trade development office in the United Kingdom at Moor House, 119 London Wall, London EC2.

DOMINICAN STEAMSHIP LINE vessels will in future call at Port Au Prince, Haiti, en route to Dominican Republic ports from New York.

A SURCHARGE of 2½ per cent on cargo shipped from the United Kingdom and Eire to United States east coast, Canadian Maritime, St Lawrence River and Great Lakes ports has been imposed by the North Atlantic Westbound Freight Association and the Canadian North Atlantic Westbound Freight Conference. The surcharge will take effect from November 1.

* * * *

AN Airport Authority is to be set up by the Ministry of Civil Aviation to own and manage the main international airports owned by the State—Heathrow, Gatwick, Stansted and Prestwick, and to plan, build and manage any new airports that may eventually be required. Aerodromes which serve some of the main centres of population will be placed under the management of local authorities.

AN AGREEMENT has been signed between the Dominican Republic Government and the Chicago firm of Meissner Engineers Inc for the establishment of a major mining and metal producing enterprise, with 51 per cent of the assets owned by the Dominican State. The investment in capital equipment will be in the region of $60 mn and will include a railway and a new port at Punta Gorda. The first stage will be the exploitation of the large iron ore deposits in the provinces of Sanchez Ramirez and Duarte. It is estimated that an annual production figure of 5 mn tons of ore will be achieved soon after shipments begin in 18 months' time and it is possible that this may be doubled three years from this date.

THE SECOND BERTH of the £650,000 two-berth Tasmanian ferry terminal in the port of Melbourne has been brought into operation.

THE Tannoy group of companies has further expanded with the formation of a new company—Tannoy Marine (Distributors) Ltd.

THE "GABOR STEINER" SHIPYARD, at Komarno, on the Danube, is at work on an order for 50 dry-cargo ships of 2,000 dwt, to be delivered by the end of 1965. These are twin-screw ships, driven by two Skoda deisel engines, each with an output of 525 bhp, at a speed of 10.6 knots. They are 341ft in length, with all-welded hulls, reinforced for navigation in drift ice. The first ship of this series will be completed and handed over by the end of the present quarter.

ONE OF THE largest liner-rebuilding projects in American merchant marine history has passed the halfway mark. This is American President Lines' $9-mn conversion of the former *Leilani* into the *President Roosevelt* by the Puget Sound Bridge & Dredging Co at Seattle. Stripped down to her hull, the ship will be completely reconstructed as an all-air-conditioned ship for 456 passengers. When she enters trans-Pacific service on 11 January 1962, she will increase APL's first-class space to the Far East by 50 per cent. The *President Roosevelt* was built during the war as the P2 transport *Gen. W. P. Richardson* and later operated in American Export Lines' Mediterranean service as the *LaGuardia*.

A HISTORIC steamship link between New York, Nova Scotia and Newfoundland has been broken with suspension of the Furness Red Cross Line. Long famous as a passenger service, the line has operated only small cargo ships in recent years. Furness continues its passenger-cargo Furness Warren Line between Boston and Liverpool with calls at Halifax and St Johns.

DURING the first half of 1961 Swissair carried 21 per cent more passengers on all sectors of its network than in the corresponding period of 1960. The total was 692,000 compared with 571,000—or more than for the whole of 1955.

FIFTY YEARS AGO

From THE SHIPPING WORLD of 9 August 1911

The new P. & O. s.s. *Medina*, which has been chartered to convey the King and Queen to India for the Coronation Durbar, is to commission at Portsmouth on October 10 as one of His Majesty's ships. Rear-Admiral Sir Colin Keppel, who is to command the Royal Yacht, is also to be in command of the escort, which will consist of the first-class cruisers *Cochrane, Argyll, Defence* and *Natal*. The squadron will be placed under the orders of Sir Colin Keppel at Spithead on November 2, and, it is stated, will leave Portsmouth a week later. It is expected that the King and Queen will return during the second week in February.

It appears that Messrs. T. & J. Harrison have acquired something more than a controlling interest in the business of Messrs. John T. Rennie & Co. The firm have, it is said, purchased the business outright, and have now become the owners of the Aberdeen Direct Line of Steamers from London to Natal. It is gathered, however, that Messrs. Rennie, Son & Co. will continue to manage the business in London.

The statistical summary of vessels totally lost, broken up, condemned, etc., now published by Lloyd's Register of Shipping, shows that, during 1910, the gross reduction in the effective merchant marine of the world amounted to 863 vessels of 947,690 tons, excluding all vessels of less than 100 tons. Of this total 421 vessels of 667,440 tons were steamers, and 442 of 280,250 tons were sailing vessels. The total for steamers exceeds that for 1909 by 21,770 tons, whereas the figures for sailing vessels are 13,312 tons less than those for that year.

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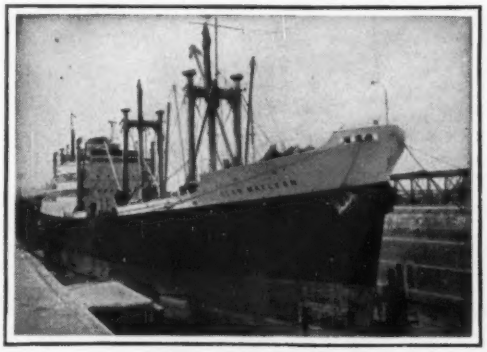

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